DOCUMENT RESUME

ED 321 625	HE 021 640

TITLE Shaping a Cohesive Agenda: Next Steps. National Conference on Adult and External Degree Programs. (7th, Memphis, Tennessee, October 7-10, 1987).
INSTITUTION Alliance, an Association for Alternative Degree Programs.; American Council on Education, Washington, D.C.
PUB DATE Oct 87
NOTE 316p.; Also sponsored by the International University Consortium.
AVAILABLE FROM The Alliance, Adult Degree Program, Mary Baldwin College, Staunton, VA 24401 ($4.00).
PUB TYPE Collected Works - Conference Proceedings (021)

EDRS PRICE MF01/PC13 Plus Postage.
DESCRIPTORS Adult Education; *Adult Programs; *Adult Students; College Curriculum; College Instruction; College Programs; *Distance Education; *External Degree Programs; Graduate Study; Higher Education; Marketing; Teaching Methods

ABSTRACT

Proceedings of an international conference on adult and external degree programs are presented. Selected papers are drawn from the areas of distance learning, support services, intra-institutional, curriculum, and teaching. They include: "Uses of Distance Education for Graduate Professional Degrees" (Ruth J. Person and Raymond Vondran); "Library Services of Off-Campus Programs" (William Aguilar, Marie Kascus, and Doris R. Brown); "Reducing Opposition in the University" (Joseph Baglio); "Integrating the Teaching of Thinking, Writing and Math Reasoning into Distance Learning" (Dan A. Davis); "The Capstone Student: Breaking Boundaries and Building Bridges Intra-Institutionally" (Robert Carter); "Students: An Untapped Resource for Adult Programs" (Thomas E. McDuffie); "Quality in Off-Campus Videobased Graduate Technical Education" (Stanley A. Huffman and Harvey R. Stone); "Demonstration of Baccalaureate-Level Competency" (Thomas Taaffe and Lenore Burgard); "Building Faculty Consensus at a Distance" (Judy Deleau); "Non-Traditional Programs: The Programs People Love to Hate" (Colin Silverthorne); "Orienting the Adult Learner" (John C. Adams, Daniel Fulks, and Norma J. Strickland); "Overarching Themes: An Approach to Curriculum Design" (Sarah Evans); "Articulation of Proprietary Schools and College: A Model" (Terry Dunford); "Program Enhancement through Publications" (John Walter Mey); "Contextual Knowing: Teaching Strategies for Adults" (Donald B. Pribor); "Curricula for Mid-Career Professionals" (Merl Baker); "Research in Distance Learning" (Bobbi L. Kamil, Joyce Nielsen, James F. Niss, and Paul W. Grimes); "Marketing to Adult Learners" (Nancie Thole, Sharon O'Brien, and Susan English); "Advisement of Adult Learners: Research from the Field" (Jan-Marie Spanard and Ulestine Watson); "Curricular Innovation in Graduate Professional Education: The Balance with Liberal Learning" (Jean W. Knoll and Catherine Marineau); "Archiving as Means to Study Teaching" (Sharon E. Simone); "New Opportunities in Distance Learning" (Daniel Granger and Michael F. Beaudoin); "Teaching Adult Teachers about Teaching Adult Learners" (Jack Hirschfeld); "Silicon and Ivy: New Pathways to Higher Education" (William J. Seaton); "Models of Individualized Degree Programs" (Kent Warren); "External Degree Programs: Lessons from Experience" (Anna Bolling, Earl Hausle, and Karla M. Klinger); and Transcripting of Non-Traditional or Extra-Institutional Credits" (Marie Redwine). Author and institution indexes are provided. Contains references throughout. (KM)

ED321625

The 7th

National Conference on Adult and External Degree Programs

Shaping A Cohesive Agenda:

next steps

October 7–10, 1987

Memphis, Tennessee

Cosponsored by

ALLIANCE
An Association for Alternative Degree Programs for Adults

AMERICAN COUNCIL ON EDUCATION

Participating Institution:

INTERNATIONAL UNIVERSITY CONSORTIUM

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

The Alliance

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

HE 021 646

BEST COPY AVAILABLE

TABLE OF CONTENTS

FOREWARD i

PROGRAM FOR THE SEVENTH NATIONAL CONFERENCE ON ADULT AND EXTERNAL DEGREE PROGRAMS ii

PRESENTATIONS BY CATEGORY:

Distance Learning 1

Support Services 85

Intra-Institutional Relations 205

Curriculum 241

Teaching 283

INDICES

Author index 309

Institution index 311

FOREWARD

In Planning the Seventh National Conference on Adult and External Degree Programs, The Alliance, with the American Council on Education and participating institution, The International University Consortium, has sought to provide a framework allowing individuals representing a broad range of institutions, policies and practices to come together to exchange ideas, refine goals and objectives, and decide together upon new directions. Our purpose is to facilitate the shaping of a cohesive agenda for the continued advancement of the profession of adult education.

Papers included in the Proceedings represent examples of current scholarship, practice, and concerns in the profession of adult and continuing education. The members of the Program Committee have selected papers from among the wealth of proposals for presentation which provide insight and expertise in five areas critical to our common concern: distance learning, support services, intra-institutional relations, curriculum, and teaching. The organization of the Proceedings for this Conference reflects these subject headings; further, separate indices by Author and by Institution are provided to facilitate access to the valuable information contained in these materials.

Finally, we present to you the Proceedings of the Seventh National Conference on Adult and External degree Programs with confidence that the activities of this year's Conference in Memphis, Tennessee have provided welcome opportunities for lively discussion, renewal of creative thought and energy, and warm reunion with colleagues.

Janice G. Keith

The Program Committee

Muriel Dance
Jean Eason
Dennis Parks
Eugene Sullivan

PROGRAM FOR THE SEVENTH NATIONAL CONFERENCE

ON ADULT AND EXTERNAL DEGREE PROGRAMS

October 7-10, 1987

Memphis, Tennessee

KEY

(DL) Distance Learning

(SS) Support Services

(II) Intra-Institutional Relations

(C) Curriculum

(T) Teaching

Wednesday, October 7, 2:00-3:15pm

(DL) "Uses of Distance Education for Graduate Professional degrees"
Dr. Ruth J. Person, Dean
College of Library Science
Clarion University of Pennsylvania
and
Raymond Vondran, Dean
School of Library Information Science
Catholic University of America

(SS) "Library Services of Off-Campus Programs"
Dr. William Aguilar, Library Director
and
Marie Kascus
Head Series Department
Central Connecticut State University
and
Doris R. Brown, Director of Libraries
DePaul University
Facilitator
Janice Keith, Associate Dean
University College
Northwestern University

(II) "Reducing Opposition in the University"
Dr. Joseph Baglio, Director of Adult Programs
National College of Education

Wednesday, October 7, 3:30-4:45pm

(DL) "Integrating the Teaching of Thinking, Writing and Math Reasoning into Distance Learning"
Dr. Dan A. Davis, Associate Dean
College of Liberal Studies
University of Oklahoma

(II) "The Capstone Student; Breaking Boundaries and Building Bridges Intra-Institutionally"
Robert Carter, Director
Weekend College Program
Wayne State University

(SS) "Students: An Untapped Resource for Adult Programs"
Thomas E. McDuffie
Vice President for Administrative Service
St. Joseph's University

Thursday, October 8, 10:45am-12:00pm

(DL) "Quality in Off-Campus Videobased Graduate Technical Education"
Stanley A. Huffman, Director
Office of the Learning Resources Center
Virginia Polytechnic Institute & State University
and
Dr. Harvey R. Stone
Special Assistant to the President
University of Massachusetts at Amherst

(C) "Demonstration of Baccalaureate-Level Competency"
Thomas Taaffe, Director, D.C. #37 Campus
School of New Resources
College of New Rochelle
and
Lenore Burgard, Academic Advisor
University of Minnesota

(II) "Building Faculty Consensus at a Distance"
Dr. Judy Deleau, Assistant Professor
Mary Baldwin College

Thursday, October 8, 2:00-3:15pm

(II) "Non-Traditional Programs: The Programs People Love to Hate"
Dr. Colin Silverthorne, Dean
University of San Francisco

(SS) "Orienting the Adult Learner"
Dr. John C. Adams, Director
Extended Degree Program
University of Wisconsin, Platteville
and
Daniel Fulks, Professor of Education
Marshall University
and
Dr. Norma J. Strickland
Director of Student Support Services
East Arkansas Community College
Facilitator
Dennis Parks
Capital University-Cleveland

(C) "Overarching Themes: An Approach to Curriculum Design"
Dr. Sarah Evans
PACE Director
Longview Community College

Thursday, October 8, 3:30-4:45pm

(II) "Articulation of Proprietary Schools and College: A Model"
Dr. Terry Dunford
District Director
Cuyahoga Community College

(SS) "Program Enhancement through Publications"
John Walter Mey, Editor
Extended Degree Programs
Central Michigan University

(T) "Contextual Knowing: Teaching Strategies for Adults"
Dr. Donald B. Pribor
Professor of Biology
University of Toledo

(C) "Curricula for Mid-Career Professionals"
Dr. Merl Baker, Director
Center for Professional Career Enhancement
University of Tennessee at Chattanooga

Friday, October 9, 8:30-10:00am

Working Groups for the National Agenda
Research
Distance Learning
Articulation
Principles of Good Practice
Public Relations
Consulting Services
Professional Development

Friday, October 9, 10:15am-12:00pm

(DL) "Research in Distance Learning"
Dr. Bobbi L. Kamil
Special Assistant for Academic Utilization
The Annenberg/CPB Project
and
Dr. Joyce Nielsen, Director
Independent Study Program
and
Dr. James F. Niss
Professor of Economics
Western Illinois University
and
Dr. Paul W. Grimes
Assistant Professor of Economics
Mississippi State University

(II) "Marketing to Adult Learners"
Nancie Thole
MEC Associates
and
Sharon O'Brien, Manager
Southfield/Livonia Centers
and
Susan English, Manager
Sterling Heights Center
Wayne State University
Facilitator
Dr. Dan Davis, Associate Dean
College of Liberal Studies
University of Oklahoma

(SS) "Advisement of Adult Learners: Research from the Field"
Jan-Marie Spanard
Academic Officer for Business Degrees
Regents College Degrees
and
Ulestine Watson, Coordinator
University Without Walls
Northeastern Illinois University
Facilitator
Susanne Darnell, Associate Dean
University College
Memphis State University

(C) "Curricular Innovation in Graduate Professional Education: The Balance with Liberal Learning"
Dr. Jean W. Knoll
and
Dr. Catherine Marineau
School for New Learning
DePaul University

Friday, October 9, 2:00-3:15pm

(T) "Archiving as Means to Study Teaching"
Sharon E. Simone, Director
Weekend Learning Communities
Lesley College

(DL) "New Opportunities in Distance Learning"
Daniel Granger, Director
Center for Distance Learning
Empire State College, SUNY
and
Michael F. Beaudoin
Bentley College

(C) "Teaching Adult Teachers about Teaching Adult Learners"
Jack Hirschfeld
United Postal Service

(DL) "Silicon and Ivy: New Pathways to Higher Education"
William J. Seaton, Director
Center for Learning Through Telecommunications
Thomas A. Edison State College

Friday, October 9, 3:30-4:45pm

(C) "Models of Individualized Degree Programs"
Dr. Kent Warren
Admissions Coordinator/Academic Advisor
University College
University of Minnesota

(DL) "External Degree Programs: Lessons from Experience"
Anna Bolling, Coordinator Assessment Services
St. Edwards University
and
Dr. Earl Hausle, Assistant Program Director
Tusculum College
and
Karla M. Klinger
Program Director
University of Minnesota-Morris
Facilitator
Robert Trullinger, Director
Institute for Career and Personal Development
Central Michigan University

(SS) "Transcripting of Non-Traditional or Extra-Institutional Credits"
Dr. Marie Redwine, Director
Adult Degree Program
Southwestern Adventist College

10

DISTANCE LEARNING

INTEGRATING THE TEACHING OF THINKING, WRITING & MATH REASONING: A NEW VENTURE AT THE UNIVERSITY OF OKLAHOMA

By L. Dee Fink; co-presenter Dan A. Davis
College of Liberal Studies
University of Oklahoma

Can colleges do a better job of teaching students how to do critical thinking, effective writing, and mathematical reasoning? The College of Liberal Studies at the University of Oklahoma thinks it can, and is currently offering a new course designed to do just that.

The faculty of this college shared the concerns of many national leaders about the quality of American college graduates. Although pleased with many aspects of the Liberal Studies program, the faculty believed that the program did not do as good a job as it should in teaching students these three fundamental intellectual skills. They therefore decided to develop a five-day Introductory Seminar that would emphasize these skills and which would be taken by all students at the beginning of their undergraduate program.

Nature of The College Program

The College of Liberal Studies is a full undergraduate degree program with the University of Oklahoma, designed for adult, nonresidential students. Students do the equivalent of one year's worth of work in each of four areas: natural sciences, social sciences, and humanities, as well as an integrated final year called the Inter-Area. In each of the four areas, the students must complete a list of prescribed readings under the guidance of a faculty adviser, attend a two-week seminar, and conduct an independent learning project. The College has approximately 500 active BLS students.

Previously, students could enroll at any time. When they did, they were sent a student's manual, the books on the reading list, and were assigned a faculty adviser. In 1984, a College committee assigned to evaluate the Inter-Area phase of the program made the visionary recommendation that the seminar for that portion of the program be reduced by one-week and that time be moved to the front end of the program in the form of a one-week Introductory Seminar.

Preparation of the Faculty

The College needed to have a pool of faculty members who understood the special nature and needs of this seminar and who would be available to teach it several times a year. Therefore, the College carefully selected twelve faculty members to attend a weekend retreat on teaching this seminar. They were divided into four teams with three members each: one natural sciences person, one social sciences, and one humanities.

What Happens in the Seminar

The new Introductory Seminar was offered for the first time in June of 1986 and is currently being offered approximately every two months. The seminars are taught by three faculty members who hold positions in regular University academic departments and work on an overload basis in Liberal Studies. The faculty team selects a central theme for the seminar and then identifies a set of related readings which are sent to the students before the seminar begins. The students are given a writing assignment based on the readings. When the seminar begins, a class discussion is held that either critiques the reading selections or critiques the student papers. Sometimes the class is divided into small groups so that students can review each other's papers and make suggestions on how to improve them. During the course of the seminar, students write several short papers and/or re-write their papers several times. Each time, they receive feedback, either from other students or from the professors, on the coherence of their ideas and on the clarity of their written statements.

Whenever possible, reading selections are chosen that include some math material. At some point in the seminar, these are discussed to show the role math reasoning plays in contemporary thought, especially in the natural and social sciences. To help "de-mystify" math for all students but especially for students suffering from math anxiety, a professor from the University's mathematics department offers several special sessions elaborating on the math problems involved in the reading selections.

The structure of these activities reveals one of the important assumptions behind the seminar. This is that the three skills of critical thinking, effective writing, and mathematical reasoning are taught best when they are taught together. As a result of trying to express one's thoughts carefully, a person gains a better understanding of what makes an idea a good idea. By having a clearer understanding of what constitutes critical thinking, a student should be able to state such thoughts more effectively. And, after translating ideas into quantitative terms and back again, one should acquire an increased appreciation of the special value of both numbers and words in advancing critical thinking.

Related to this last point, students at some point in the seminar engage in a small empirical investigation. This might involve collecting data, for example, on student behavior on campus, the distribution of oak trees, or physical reaction times (using equipment in the Physical Education Department). In the process of summarizing and analyzing their data, students realize the value of even an elementary understanding of math reasoning.

What Are the Results?

After teaching several sessions of the seminar during the 1987 academic year, the faculty involved in this venture held a meeting to discuss the results of the seminar plan. Despite some original apprehension about being able to accomplish much in so short a time, they concluded that the seminars have been a major success.

Although students obviously did not become masters of the skills of thinking, writing, and math reasoning, they did gain a clear understanding of what these skills are and of their value. And, importantly, they also did take important steps toward improving their skills in these areas.

The hope and expectation now is that these students will be able to do two things more effectively as they proceed through the rest of their degree program. First, they should gradually but continuously improve their ability to do critical thinking, effective writing, and math reasoning because they now know what these skills are and why they are important. Second, they will learn more from the four content areas of the program because they will bring more effective learning skills and a clearer sense of purpose to the study of these areas.

Comments by students in their evaluations of the seminars support these beliefs:

> The entire seminar was one of the most stimulating events I've ever attended. Discussions made me re-evaluate ideas I'd formed beforehand.
>
> Exposure to the critical thinking was a new experience for me as I have always accepted or gone along with a group, never really being aware of taking issues and evaluating it thoroughly as was required during this seminar.
>
> The entire five days I was on top of the world. Tired, but very excited and stimulated--and eager to begin the BLS.
>
> I found the interdisciplinary approach to each study area by the faculty extremely useful--and motivating. The three professors were very encouraging and I appreciated their enthusiasm for topics and the entire seminar. Already, I am more optimistic about the personal value I can get out of the BLS areas by considering how they are interrelated. I really enjoyed the seminar.
>
> I found the reading by Karl Marx quite valuable. The professor helped me see it critically rather than negatively.

The key strategy of the retreat was to have these faculty members do what the College wanted the students to do: read short selections in each area, critique them, work in small groups, write and revise short statements, engage in math reasoning, etc. Two specialists were brought along to discuss the teaching of writing and math reasoning.

This strategy was successful in that, by the end of the retreat, the faculty had enthusiastically "bought into" the ideas of using small groups to make the students more active, of reviewing student writing for both the quality of the ideas and the quality of the writing, etc.

By the end of the retreat, each team had started the process of developing a theme, making reading selections and divising a sequence of activities for their version of the seminar.

These effects will presumably help the students to enjoy the program more and to be more successful in it. One early indication that this is happening is a significant reduction in the early drop-out rate. Although the Introductory Seminar has only been available for approximately one year, the number of drop-outs thus far is 40 to 50 percent less than what we would have expected, based on previous experience. Interestingly, the seminar has also had an effect on the professors who have taught it. They have seen the energy, excitement and kind of learning generated by the use of small groups, short writing exercises focused on critical thinking, and attention to math reasoning associated with a wide variety of subject matter. As a result, they were not only excited themselves by teaching this seminar, but they have been prompted to modify the courses they teach for traditional undergraduates on the main campus of the university. Their comments:

> 'Before teaching this seminar, I was apprehensive about trying to do so much in such a short amount of time. But in fact, it all got accomplished and came off quite well.'

> 'I have taught a lot of seminars before, even here in the College of Liberal Studies. But I think I enjoyed this one more than any I have ever taught.

> I now require my students (on the main campus) to do more writing and to put into written form some of their critical thinking. I also ask students to review each other's writing, something suggested for the Introductory Seminar by our consultant from the English Department.

Hence it is not an exaggeration to say that the new Introductory Seminar in the College of Liberal Studies is having a major impact on the students in the program, on the professors who teach it, and indirectly on the students on the main campus of the University.

VIRGINIA'S TELEVISED GRADUATE ENGINEERING PROGRAM ©

Stanley A. Huffman, Jr.
Director, Learning Resources Center
Virginia Tech
Blacksburg, Virginia 24061

The Virginia Cooperative Graduate Engineering Program is entering its fifth year of operation. The program was created in 1983 in order to fill a void in graduate engineering education in the Richmond area and has since expanded to include both in-and out-of-state sites. The current program was the result of "The Report of the Governor's Task Force on Science and Technology in Virginia." In this report, it was cited that the problem of no engineering graduate program in some areas could be solved by offering courses from Virginia Tech and the University of Virginia. Thus, the program was created.

THE BEGINNING

Funds were appropriated by the General Assembly for an initial one-year phase of the project. Subsequently, funds have been appropriated to continue and expand the program. Currently, courses are offered to approximately 30 sites including Northern Virginia, Tidewater, Central and Southwest Virginia, and other states.

The concept of "host institutions" was developed to provide logistical support locally as well as courses which would support the program. The other institutions of higher education in the program include Virginia Commonwealth University, George Mason University, Old Dominion University, and Mary Washington College. In addition, two independent centers also are participants - the Lynchburg Center for Advanced Engineering and the Halifax County/South Boston Continuing Education Center. Assistance is also provided by the Virginia Department of Information Technology.

Initially the program used the microwave system of the Virginia Public Television Stations and an Instructional Television Fixed Service (ITFS) system for broadcast of signals. As the program expanded and as there was a need to reach more remote areas of the state which could not be served by a terrestrial system, the obvious need for satellite delivery of courses was apparent. During the Spring of 1986, one course was telecast via satellite to Lynchburg, since the area could not receive an ITFS

©, Stanley A. Huffman, Jr., 1987

signal. Beginning with the 1986-87 academic year, all courses were transmitted by C-band satellite to university, industrial, and public television sites with downlinks and by ITFS to sites without satellite receivers. In the Fall of 1987, only satellite delivery will be utilized.

During the 1983-84 academic year, Virginia Tech provided courses in Electrical Engineering and Industrial Engineering and Operations Research while the University of Virginia offered courses in Civil Engineering and Materials Science. The courses were transmitted to classrooms at Virginia Commonwealth University in Richmond using the microwave system and ITFS. The program was well received by students and industry representatives. Surveys indicated that the students were satisfied with the television instruction and rated positively both the technical and instructional quality of the courses.

Because of the success of the project in Richmond, the 1984-86 Appropriations Act provided funds for expanding the program into Northern Virginia and the Hampton Roads area. Furthermore, the two universities increased the number of engineering courses offered by a factor of three so that in the biennium six courses per term were televised from each university. During the 1986-88 biennium, the number of courses offered was increased again so that each university would offer eight courses per term.

ENROLLMENT

Enrollments have grown steadily over the four years of the televised program. Table 1 shows fall term enrollment trends for each of the four academic years.

In 1986-87 about one-half of all television enrollments were in Northern Virginia. Enrollments by region and in the on-campus sections are summarized in Table 2. Virginia Tech courses tend to attract more students, especially one course in Computer Architecture that enrolled a total of 148 students. Total course registrations for the year were 1,893, including 1,119 receiving courses via television.

In addition to the televised courses, the host institutions teach support or complementary engineering courses. In 1986-87, an additional 890 students enrolled in such courses, with 453 at George Mason, 125 at Old Dominion, and 312 at Virginia Commonwealth University. The combined enrollments, televised and host institution, were 2,783 registrations.

TABLE 1
TELEVISION ENROLLMENT TRENDS
Fall Term Only

Location	1983	1984	1985	1986
Richmond	69	119	146	116
Northern Virginia		90	189	228
Hampton Roads		18	23	75
Lynchburg			10	42
Other Virginia			46	38
Fredericksburg				55
Out-Of-State				15
TV Students Total	69	227	414	569
On-Campus Students	73	257	301	283
TOTAL ENROLLMENT	142	484	715	852

TABLE 2
SUMMARY OF AY 1986-87 ENROLLMENTS

	UVA	VA TECH	Total UVA & VA TECH
Richmond	96	139	235
Northern Virginia	106	402	508
Hampton Roads	63	88	151
Lynchburg	43	53	96
Fredericksburg	7	87	94
Other Virginia	11	73	84
Out-Of-State	16	15	31
Total TV	342	857	1,199
Total On-Campus	287	407	694
GRAND TOTAL	629	1,264	1,893
Average/Course	39.3	52.7	47.3

COURSES AND CURRICULUM

All courses are taught at the graduate level and lead to a Master's degree at Virginia Tech or the University of Virginia. Currently Master's degree programs are offered by Virginia Tech in Industrial Engineering and Operations Research, Electrical Engineering, Mechanical Engineering, Civil Engineering, Aerospace and Ocean Engineering, and

Systems Engineering. The University of Virginia provides programs in Materials Science, Chemical Engineering, Electrical Engineering, Mechanical and Aerospace Engineering, Systems Engineering, and Civil Engineering.

One of the primary purposes of the program is to offer a Master's degree to engineers who are practicing in the field who, otherwise, would not have the opportunity to obtain an advanced degree while working full-time. This program allows any practicing engineer to obtain such a degree or to take courses which are of special interest in their line of work.

Economic development is a strong factor in regard to the Televised Graduate Engineering Program. Graduate courses offered to engineers at Virginia's industrial sites provide an additional incentive in attracting industries to establish plants and facilities in the Commonwealth. By providing opportunities in graduate engineering education, "high tech" industries will be attracted to Virginia. Supporting current educational needs of employees provides an opportunity for individual career growth. Retention of both industries and personnel is an important outcome sought through the televising of engineering courses.

Students enrolled in the program are admitted to one of the two degree granting institutions. Program admission requirements for matriculating students are the same for all locations. There is a mix of courses so that qualified individuals working in industry, business, or government agencies can enter a program at the beginning of any given quarter or semester throughout the academic year. Since all classes originate with a campus based enrollment, once a course is advertised, it is assured of being offered through the televised system. In order to accommodate industrial site students, all classes are taught in late afternoon or early evening to facilitate schedules.

While all courses are offered for credit, individuals may elect to audit courses and be in a non-degree status. It is possible to obtain a degree entirely by television without ever coming to campus. The program is very liberal in regard to the transfer of credit. Courses may be interchanged between the two degree granting universities as well as transferring credits from host institutions, if they are in direct support of the curriculum in which the student is enrolled. A cardinal rule, established at the inception of the program, is that 50% of the courses must be taken from the institution which grants the degree. Thus, a combination of courses is possible, and students have graduated who have taken courses from both the transmitting as well as host institutions in Virginia.

The duplication of courses between those taught from Blacksburg and Charlottesville are minimized through careful coordination. The object is to provide a wide variety of subject offerings and to encourage the transferability of courses between participating institutions. The host institutions who offer supporting courses often enhance the student's program by allowing them a greater opportunity to take courses needed to fulfill graduation requirements. In addition to originating classes at the two universities, Virginia Tech will originate a course at NASA Langley, using an adjunct professor, in the fall 1987.

TECHNICAL COMPONENTS

The courses all originate live in specially built electronic classrooms. Students are present in the originating classroom as well as those at all viewing sites. Lecturers can utilize an overhead video camera, microcomputer output, videotape, slides, models, character generator, and a video writer. The overhead camera permits the teacher to use graphics which have been prepared by artists as well as those which he or she creates during the class. If graphics or other instructional materials are not being used, a camera at the back of the room views the instructor as ideas are being discussed. The decision regarding which camera is on-line for television viewers is made by a producer/director in a control room at the rear of the electronic classroom.

One of the special features in live classes is the ability to interrupt the instructor when a question occurs. If questions are asked in the on-campus classroom, they may be heard throughout the system as each student has access to a voice activated microphone. Likewise, those persons viewing the program at remote sites have "press to talk" microphones which can be activated when a question needs to be asked. While the origination of the picture and sound are carried via satellite, the return audio is carried by telephone lines. All receive sites are connected through a "telephone bridge" either in Northern Virginia or in Richmond.

Individual courses offered are videotaped while being taught. Tapes are made available at designated remote sites for review if an off-campus student misses a regularly scheduled class. Tapes are available from the originating site, if a system malfunction occurs, and then tapes are dispatched to the various remote locations. All tapes bear a copyright notice and are erased at the completion of the school term.

Most classes have assigned textbooks and may have additional reference materials. Class notes and other handouts are provided by the instructors and distributed on-site to students by graduate assistants or industry coordinators. Tests, homework assignments, and final exams are administered by these assistants and returned to the instructor by a courier service. Students generally have access to on-site microcomputers at host institutions or at the industry where they work. Also provided is access to the campus main-frame computer, facsimile for transmitting documents, and electronic mail between professors and students which can be used for any course.

PROGRAM EVALUATION

A formal ongoing system evaluation effort has been established and the evaluation team provides an annual report regarding several facets of the program. The evaluation report is based on questionnaires distributed to students and faculty members in the program and on student performance.

In 1986-87, the on-campus students earned significantly higher grades than the televised students. However, both groups performed satisfactorily. Of the forty courses offered during the year, seven were too small to compare on-campus with TV students. Of the remaining thirty-three, eighteen did not differ significantly; however, fifteen did differ significantly, all favoring the on-campus students. The mean grades for the past academic year are shown in Table 3.

TABLE 3
MEAN GRADES - 1986-87

	Fall	Winter	Spring	Year
On-Campus	3.51 (B+)	3.58 (B+)	3.59 (B+)	3.53 (B+)
TV	3.23 (B)	3.18 (B)	3.28 (B)	3.25 (B)

In three of the four years of the program, the pattern of grades has been remarkably similar to the 1986-87 academic year. These results are shown in Table 4.

TABLE 4
MEAN GRADES OVER FOUR YEARS

	1983-84	1984-85	1985-86	1986-87
On-Campus	3.48 (B+)	3.27 (B)	3.41 (B+)	3.53 (B+)
TV	3.10 (B)	3.28 (B)	3.07 (B)	3.25 (B)

Students were asked to respond to several questions about the courses and instructors. Both TV and on-campus students gave the courses good ratings over the years. It may be noted that textbook selection and classroom dynamics were rated lower than most of the characteristics by both groups. Problems with classroom dynamics may be inherent in the television format. TV students thought that the work load was perhaps a bit heavy. This may be inevitable for a group of students who are employed full time. Characteristics of the courses are reviewed in Table 5.

TABLE 5
MEAN RATINGS OF COURSE CHARACTERISTICS BY MEDIUM & YEAR

(Note: Responses on a 5-point scale, with 1=negative & 5=positive)

Course	83-84		84-85		85-86		86-87	
Characteristic	TV	Campus	TV	Campus	TV	Campus	TV	Campus
Overall rating	3.7	3.8	3.6	4.1	3.4	3.8	3.7	4.0
Textbook	2.8	3.2	3.1	3.0	2.9	3.4	3.3	3.2
Classroom Facilities	3.8	4.2	3.8	4.0	3.8	3.9	3.6	3.9
Overall Instruction	3.7	4.0	3.7	4.2	3.3	3.8	3.6	3.9
Reasonable workload	3.0	3.5	3.3	3.6	3.1	2.8	3.1	3.6
Integration of materials	3.4	3.9	3.5	4.1	3.3	3.6	3.5	3.8
Classroom dynamics	3.1	3.3	3.0	3.4	2.7	3.1	3.1	3.3

Responses to selected instructor characteristics are shown in Table 6. While nothing very dramatic is shown, there has been a steady, even though small, decline in ratings over the years. This change could be the result of the students becoming a more critical viewing audience as a result of experience and a variety of instructors.

TABLE 6
MEAN RATING OF INSTRUCTOR CHARACTERISTICS BY MEDIUM & YEAR
(Note: 1 = negative, 5 = positive)

Characteristic	83-84		84-85		85-86		86-87	
of Instructor	TV	Campus	TV	Campus	TV	Campus	TV	Campus
Preparation	4.9	4.9	4.5	4.8	4.4	4.3	4.3	4.4
Use of Visuals	4.8	4.6	4.3	4.5	4.0	3.9	3.7	3.8
Use of Examples	4.4	4.4	4.1	4.4	3.9	4.0	3.8	4.2

TV students have been asked if they were obtaining an education equivalent to that of on-campus students. The majority of the students have indicated a positive reaction in this regard. A summary of the responses over the life of the program are shown in Table 7.

TABLE 7
RESPONSES TO QUESTION ABOUT "EQUIVALENT EDUCATION"
(TV Students)

Year	83-84	84-85	85-86	86-87
% Yes	73	79	68	74

Questions pertaining to the technical capabilities of the system are also asked of the students. Judgments on the quality of transmission have remained positive with little change over the years and are reviewed in Table 8.

TABLE 8
TV STUDENTS' VIEWS ON QUALITY OF TRANSMISSION (Mean Score)
(Note: 1 = poor, 5 = always good)

	83-84	84-85	85-86	86-87
Sound Quality	4.0	3.7	3.9	4.0
Picture Quality	4.0	3.9	4.0	4.1
Legibility (Writing & Visuals)	3.7	3.8	3.8	3.8

Students were given the opportunity to comment on the program through open ended questions. The most frequent comments indicated that they were concerned about the lack of contact with the professor, the slow delivery of materials, wanted copies of notes and visuals as handouts from classes for which they were not provided, and that the courses were too theoretical. A common concern of both campus and TV students is the scheduling of the class which is late afternoon or early evening.

Faculty were also surveyed regarding their impressions of their experiences. A number of faculty responded and indicated that the advanced preparation of audio-visual materials was a necessary aspect of the program. The conduct of the class became more formal and less flexible, and they felt that class participation was less than anticipated in a so-called "normal" class. Problems identified by the faculty included the slow exchange of materials such as homework and tests, the academic preparation of the television students, the TV format inhibiting discussion, and the concern for the academic performance of some television students. Overall, the instructors have accepted this method of teaching and view it as a positive way to meet the needs of practicing engineers at industrial sites. Several of the teachers, because of the longevity of the program, have now taught several courses and have indicated a willingness to continue to participate in the televised teaching program.

IN REVIEW

When one considers the many aspects of the program which are necessary to make it successful, numerous considerations for logistics must be taken into account. The maintenance and support elements of the system are wide and varied and include the following: 1) the acquisition, distribution, installation, and support of operating equipment at sending and receiving sites; 2) familiarizing faculty members with the network and assistance in the design and development of instructional materials; 3) the processing of student registrations and associated administrative needs; 4) providing resources required in support of classroom instruction both on- and off-campus to include instructional materials, computer support, and other materials; 5) the specification, acquisition, and distribution of textbooks and support materials; 6) the distribution and retrieval of homework, tests, and exams; 7) the replication and distribution of videotapes covering lectures in the event of a failure in the system as well as providing viewing facilities at remote locations for taped programs; 8) advising of students about courses, curricular matters, and developing plans of study.

While the requirements are many, the rewards are justified in that students have an opportunity for an advanced education which they would not otherwise be able to receive because of lack of educational opportunities in many areas of the Commonwealth. This unique program has provided service and opportunity to many people throughout the state. It is the result of government, higher education, industry, and public television working together to bring about this program. It has grown from a small beginning of two courses per university with one receive site to a multicourse offering to many receive sites that serves the needs of hundreds of engineers in Virginia. Without this program, the educational opportunity for practicing engineers would fall short. Through this program, Virginia Tech and the University of Virginia are able to serve numerous people in widely dispersed areas and aid in the economic development of the Commonwealth and the educational advancement of our people.

QUALITY ISSUES IN OFF-CAMPUS GRADUATE ENGINEERING EDUCATION DELIVERED BY VIDEO

by

Dr. Harvey R. Stone
Special Assistant to the Dean
College of Engineering
University of Massachusetts at Amherst

Questions of programmatic and student quality are traditionally endemic to non-traditional and extension activities. This has been particularly the case for those pioneers who have sought to employ "new technologies" in support of off-campus delivery systems. The following paper summarizes a series of articles on recently conducted research which attend directly to the issue of quality. These include studies on how well off-campus (video) students perform in comparison to their on-campus peers, how well their quantitative credentials stack-up to those exhibited by traditional engineering graduate students, and how well these characteristics perform as predictors of performance.

INTRODUCTION

The field of continuing engineering education is characterized by a close partnership between academia and industry established to meet needs in manpower training and education. Faced with rapid advances in engineering science and practice, technical professionals find their undergraduate preparation quickly out-of-date. Industry, increasingly confronted by on- and off-shore competition and the parallel need to increase quality and productivity, now find their interests merged with employees in promoting and maintaining high levels of technical competence. Unfortunately, when attention focuses on American colleges and universities for providing advanced-level engineering graduate programs at multiple off-site corporate locations, engineering higher education is found wanting. Not unlike their industrial partners, engineering higher education suffers under its own supply/demand imbalance. Faculty and administrators are confronted with the dilemma of being asked to serve a highly complex and diverse off-campus technical population at the same time as on-campus demands for instruction and research stretch resources to the breaking point.

In seeking to serve off-campus students, who are themselves often characterized by working in locations remote from centers of higher engineering education and by the fact that there are relatively few degreed engineers per location (a classic case of a few individuals, with deep needs, chasing scarce resources), many in the engineering community have turned to instructional television (ITV) as a conduit allowing on-campus graduate faculty to be in a number of geographically and chronologically disparate locations at one time. "Candid classroom," the ITV format most widely employed to support this process, differs from traditional studio-based programming as it early-on recognized that only marginal restrictions can be imposed upon the faculty and on-campus students. The system must be unobtrusive and transparent. It exists solely to record, for delivery either by videotape, microwave, or satellite, what transpires during the normal class period. It does not exist, nor does it have the luxuries of time and funds required to produce quality "television."

Studio classrooms and their associated programs were developed accepting certain givens: faculty time is a most precious commodity and the delivery system must be sufficiently flexible to accommodate the learning needs and characteristics of non-traditional students. From their perspective, off-campus participants must be highly motivated. Learners accept that the need to access instruction outweighs the relative inattention paid by campus TV studios to normally expected production levels. No one expects engineering colleges to deliver or off-campus students to receive "NOVA." What is expected is a system capable of delivery, with both speed and accuracy, that which daily occurs in a college classroom.

The growing acceptance throughout both the industrial and academic sectors of ITV acting as a "pipeline" delivering graduate continuing engineering education is now well-documented. Even prior to initiatives such as the National Technological University, and as early as 1979, credit enrollment in engineering graduate courses delivered via television exceeded 44,000 students who were able to access 1,800 courses offered by 30 institutions (Baldwin and Down, 1981 and 1983). Yet, while continuing engineering education may have been one of the first to promote the wide-spread utilization of television to deliver graduate programs, its potential application to similar disciplines is obvious. This will grow exponentially as educators come to recognize that satellite delivery (with courses recorded at the receive site for later viewing) offers a cost-effective route through which their "products" can reach large numbers of people spread throughout an equally large number of sites. The "old days" concern of minimal section-size per off-campus location is quickly becoming moot.

The following will summarize three recent research studies, each comparing attributes of on- to (video-based) off-campus engineering graduate programs. They are offered in support of those in parallel situations who may seek to incorporate ITV in serving similarly situated off-campus populations.

The studies (Stone 1987 a,b,c) compare the characteristics (age, degree age, GRE verbal, quantitative, and analytic test scores, and undergraduate quality point average), graduate performance, and applicability of traditional admissions criteria to on- and video-based off-campus engineering graduate students.

THE SAMPLE

The research surveyed 5 years (1980/81-1984/85) of on- and off-campus graduate students in the University of Massachusetts' departments of Electrical & Computer Engineering (ECE) and Industrial Engineering/ Operations Research (IE/OR). Off-campus students were enrolled in the College's Videotape Instructional Program (VIP). The VIP is typical of most engineering extension efforts that use the "candid classroom" approach. Faculty meet on-campus students for traditional lectures in classrooms designed to support video recording of in-class activities. Off-campus students receive lectures either in real-time via satellite or through viewing videotapes. Video materials are supported by all written materials provided on-campus and viewers may telephone faculty during office hours to resolve individual questions. With an average of 2.25 viewers per course per location, corporate tutorial support is rare and students are often responsible for local course support.

In order to insure comparability between the off-campus and traditional graduate students, the sample was restricted to students with a baccalaureate degree granted from an American undergraduate institution. Excluded also were registrants whose grade records solely indicated notations of "W" (withdraw passing) or "INC" (incomplete).

The sample was divided into 6 categories:

TABLE #1

On-Campus ECE Degree Students	$\underline{n}$=219
Off-Campus ECE Degree Students	$\underline{n}$= 84
Off-Campus ECE Non-Degree Students	$\underline{n}$=424
On-Campus IE/OR Degree Students	$\underline{n}$= 83
Off-Campus IE/OR Non-Degree Students	$\underline{n}$=152

Data recorded from on- and off-campus degree students included chronological age, age of the baccalaureate degree, GRE test scores, undergraduate quality grade point average, and graduate performance. As the University's Graduate School requires minimal information for non-degree student enrollment, the data for this group was limited to student age and graduate performance

THE METHOD

Research first questioned characteristic differences between on- and off-campus students by discipline. Within both ECE and IE/OR, one-way analyses of variance (ANOVA) were run to establish statistically significant differences between traditional and video students for chronological age, degree age, GRE test scores, and undergraduate graduate grade point average. Given the limited availability of data for non-degree students, ANOVA could only be run comparing their chronological age to those of on- and off-campus degree students.

In order to determine the predictive capabilities of the quantitative measures relative to performance, base-line relationships were established by correlating graduate performance to the measures noted above. While neither chronological nor degree age are normal criteria for graduate admissions, both were included in the analyses for informational purposes.

Analyses were carried-out for on- and off-campus degree seeking students. Non-degree students were not included in the analysis. Following the correlations, the criteria, acting as independent variables, were related via ANOVA to performance to ascertain whether variations in each were statistically connected. The independent variables were also subjected to regression analysis with performance to determine their predictive capabilities. Finally, step-wise regression analyses were carried out to find that group of variables which, when acting in concert, best predicted performance within the 4 degree-seeking samples. These were supplemented by "$\underline{z}$" tests looking for statistically significant differences between the regression models' Pearson coefficients.

The last element of the analysis considered evidence of statistically significant performance differences between on- and off-campus students within graduate program cohort groups. Two tests, both involving one-way analyses of variance, were initiated to find evidence of performance differences. In the first instance, ANOVA were run to see if, overall, there were statistically significant performance differences between on- and off-campus students in ECE and IE/OR. In instances of statistical significance, post-hoc Scheffe' analyses were run to remove effects resulting from the interaction of non-degree students. To further determine differences between on-and off-campus students, all ECE and IE/OR course sections offered during the study period were surveyed for enrollment by at least two on- and two off-campus students. ANOVA were run on each course meeting the criteria to test the null-hypothesis that performance differences could not be accounted by differences in student situation. Again, where null-hypotheses were disproved, post-hoc tests were carried-out to remove effects from off-campus non-degree students.

THE DATA

Characteristic Differences

Detailed analysis of the data indicate that off-campus video-based degree students in Electrical & Computer Engineering are significantly (*F*=43.55; .01 level) older (31 versus 25) and have baccalaureate degrees that are significantly (*F*=59.99; .01 level) older (7 versus 2) than those of their traditional on-campus counterparts. The verbal skills of the off-campus degree student, as represented by the GRE verbal test score (557), is significantly (*F*=7.12; .01 level) stronger than the mean recorded for the on-campus student (512) while there are no statistically significant differences between scores on the quantitative and analytic tests (GREQ: off-campus-681, on-campus-683/ GREA: off-campus-583, on-campus-607). The undergraduate grade point average earned by the on-campus graduate student (3.21) is significantly (*F*=4.48; .05 level) higher than that earned by the off-campus ECE students (3.10).

TABLE #2

MEAN CHARACTERISTICS
ELECTRICAL & COMPUTER ENGINEERING STUDENTS

	On-Campus Degree Students	Off-Campus Degree Students	Off-Campus Non-Degree Students
N	219	84	424
Āge	25	31	30
Degree Age	2	7	N/A
GRE Verbal	512	557	N/A
GRE Quantitative	683	681	N/A
GRE Analytic	583	607	N/A
Undergraduate QPA	3.21	3.10	N/A

In Industrial Engineering/Operations Research, as in ECE, off-campus video students are significantly (F=16.01; .01 level) older (31 versus 26) and possess older (5 versus 3) undergraduate degrees (F=4.17; .05 level). With the exception of the undergraduate quality point average (3.06 on-campus versus 2.75 off-campus, F=16.43, .01 level), the in-coming credentials of the off-campus video student either exceed or are not significantly at variance with those evidenced by on-campus graduate students. No significant variations were noted in GRE test performance where the mean off-campus scores on the verbal and quantitative tests exceeded those recorded by the on-campus group (GREV: on-campus-468, off-campus-505/ GREQ: on-campus 627; off-campus-642). On-campus students out-scored video students by 8 points on the GREA (545 versus 537).

TABLE #3

MEAN CHARACTERISTICS
INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH

	On-Campus Degree Students	Off-Campus Degree Students	Off-Campus Non-Degree Students
N	83	67	152
Āge	26	31	31
Degree Age	3	5	N/A
GRE Verbal	468	505	N/A
GRE Quantitative	627	642	N/A
GRE Analytic	545	537	N/A
Undergraduate QPA	3.35	3.41	N/A

Ability to Predict Performance

Traditionally-accepted quantitative admissions criteria (and student age and degree age) offer only marginal utility in predicting engineering student performance at the graduate level. This holds for students studying in the traditional on-campus mode as well as those enrolled in courses delivered through video. While the relationships were all generally weak (See TABLE #4), the quantitative characteristics seemed somewhat better suited for predicting on-campus behavior in both ECE and IE/OR than they did for the off-campus VIP student.

TABLE #4

CORRELATIONS OF THE INDEPENDENT VARIABLES
TO GRADUATE PERFORMANCE

		Degree	Graduate	Record	Exam	Ugrad
Category Performance	Age	Age	Verbal	Quant	Anal	QPA
On-Campus ECE	.161	.226	.133	.182	.110	.250
Off-Campus ECE/VIP	.102	.130	.217	.316	.076	.144
On-Campus IEOR	-.338	-.307	.057	.366	.228	.246
Off-Campus IEOR	-.122	.105	.297	.303	.362	.062

Generally, though data indicate low levels of predictivity, evidence was obtained detailing statistically significant relationships between graduate performance and age (both chronological and degree), GRE quantitative test scores, and undergraduate quality point average among on-campus graduate students. While student and degree age were significant for traditional students, they were not for members of the off-campus sample. GREQ scores were important predictors for both on- and off-campus students with the notation that their level of significance was higher for the traditional sample (.01) than for the off-campus groups (.05). However, this lessens in import as "z" tests indicate no statistically significant differences between on- and off-campus GREQ correlations to performance. The same was noted when on-campus regression model correlations to performance were compared to the same correlations for the off-campus students (staying within disciplinary cohort groups).

Among traditional ECE graduate students, analyses of variance found main effects between performance and age (.05 level), degree age (.05 level), GREQ score (.01 level), and undergraduate grades (.01). In other words, statistically significant relationships were found between variation in these independent variables and graduate performance.

Regression analyses yielded the strongest relationships to graduate performance with undergraduate quality point average (r=.250, r squared of only 6.3% at .01 level) and degree age (r=.266, r squared of 5.1% at .05 level). While chronological age and GREQ scores were significantly (.05 and .01 respectively) related to graduate performance, their predictive capabilities were weak. When adjusted for degrees of freedom, their respective r squares were 2.1% and 2.8%. When all of the independent variables were related to graduate performance through step-wise regression analysis, the combination of variables that best predicted graduate quality point average: Graduate Performance = 82 + 3.69 Degree Age + 1.28 GREQ + 0.461 UGrad. This was statistically significant at the .01 level for 16.1% of the on-campus ECE sample's performance.

Little relationship was found between the criteria and graduate performance among the sample of off-campus ECE/VIP (degree) students. ANOVA found no main effects between graduate grades and chronological age, age of the baccalaureate degree, undergraduate QPA, or GRE verbal and analytic test scores within this group. Statistical significance (.05 level) was noted in the relationship between variation in GRE quantitative scores and graduate quality point average.

Similar results were recorded from regression analyses. No significant relationships were found with the exception of those resulting from an interaction of grades with the GREQ which was significant at the .01 level and offered an r squared of 8.7% when corrected for degrees of freedom. From these indications, it was not surprising to find that stepwise regression analysis only offered the GREQ as a considered variable (Graduate Performance = 204 + 0.208 GREQ).

Of all members of the sample, performance by on-campus IE/OR graduate students were best predicted by the criteria. The stepwise regression model (Graduate Performance = 268 + 3.29 Age + 0.245 GREQ) predicted 22.5% of the interaction at the .01 level of certainty. Statistically significant r squares were found between performance and chronological age (10.4%, .01 level), degree age (8.3%, .01 level), GRE quantitative test (12.3%, .01 level) and undergraduate quality point average (4.8%, .05 level). ANOVA's found main effects between student chronological age (.01 level), GREQ scores (.01 level), and graduate performance.

As with students in the ECE/VIP group, there are few strong relationships between the admissions criteria and graduate performance by the off-campus IE/OR student. Scores on the GRE analytic test provided the sole statistically significant (.01 level) factor and it offered an r squared of 13.1% (significant to the .01 level). The ANOVA relating variation to performance to variation in GREA scores was also significant at the .01 level.

TABLE #5 summarizes all recorded statistically significant relationships between characteristics and performance.

TABLE #5

SUMMARY OF STATISTICALLY SIGNIFICANT RELATIONSHIPS BETWEEN QUANTITATIVE CRITERIA AND GRADUATE STUDENT PERFORMANCE

FACTOR	CORRELATION TO PERFORMANCE	r SQUARED	r SQUARED CORREC. FOR DEG. OF FREED.	SIG LEVEL
On-Campus ECE Graduate Students				
Age				
All	.161	2.6%	2.1%	.05
Degree Age				
All	.226	5.1%	4.7%	.01
5 years or older	.397	15.8%	13.4%	.05
GREQ				
All	.182	3.3%	2.8%	.01
UGrad QPA				
All	.250	6.3%	5.0%	.01
3.51-4.00	.232	5.4%	4.1%	.05
Regression Model	.401	16.1%	15.7%	.01
Off-Campus (VIP) ECE Graduate Students				
Degree Age				
6-10 yrs old	.507	25.7%	21.8%	.05
GREQ				
All	.316	10.0%	8.7%	.01
GRE scores above 701	.433	18.7%	16.0%	.05

Regression Model (see GREQ)				
On-Campus IE/OR Graduate Students				
Age				
All	-.338	11.4%	10.3%	.01
Degree Age				
All	-.307	9.4%	8.3%	.01
GREV				
Scores above 601	-.816	66.5%	61.8%	.01
GREQ				
All	.366	13.4%	12.3%	.01
UGrad QPA				
All	.246	6.1%	4.8%	.05
Regression Model	.474	22.5%	21.5%	.01
Off-Campus (VIP) IE/OR Graduate Students				
GREV				
All	.297	8.8%	7.1%	.05
GREQ				
All	.303	9.2%	7.4%	.05
GREA				
All	.362	13.1%	11.5%	.01
Regression Model (See GREA)				

Differences in Performance

A one-way analysis of variance was run to determine whether statistically significant variations in performance could be found between on- and off-campus degree and non-degree graduate students in Electrical & Computer Engineering. The ANOVA (see TABLE #6) and supporting data indicate that the mean graduate performance (3.44) of off-campus ECE/VIP degree students exceeds the mean (3.25) recorded for on-campus degree students. Off-campus non-degree ECE/VIP students evidenced the lowest performance level (3.21) among the 3 groups.

TABLE #6

PERFORMANCE DATA FOR ON- AND OFF-CAMPUS ELECTRICAL & COMPUTER ENGINEERING GRADUATE STUDENTS

Description

Grad QPA	All	(Ctgry #1) On-Campus ECE Degree	(Ctgry #2) Off-Campus ECE Degree	(Ctgry #3) Off-Campus ECE Non-Degree
n	727	219	84	424
Mean QPA	3.25	3.25	3.44	3.21
Median QPA	3.44	3.37	3.50	3.50
StDev	.674	.569	.507	.744

One-Way ANOVA: Mean Graduate Performance by Student by Category: Electrical & Computer Engineering

```
Ctgry --------+---------+---------+--------
  #1   (-------*------)
  #2                (-----------*----------)
  #3  (----*-----)
      --------+---------+---------+--------
   Grad QPA   3.24      3.36      3.48
   F=4.17:  Significant at the .01 level
```

The ANOVA indicates a statistically significant variation in performance between students in the 3 categories. However, when off-campus non-degree students are removed from the equation through use of post-hoc Scheffe' analysis, results confirm the contention that variations in performance between on- and off-campus VIP degree students are not statistically significant.

To compl ment the ANOVA, 37 ECE course sections, each meeting threshold enrollment requirements for on- and off-campus students, were analyzed for significant performance variation between traditional and video-based engineering graduate students. Of the 37 tested, 28 yielded insignificant "F" scores, indicating that the null-hypotheses were not disproved. A statistically significant variation was found in only one instance when the remaining 9 sections were subjected to post-hoc analyses removing effects resulting from the interaction of off-campus non-degree students.

These data clearly support the contention that off-campus students, studying either individually or in small groups, without support of a tutor, perform on par with their on-campus counterparts.

Similar conclusions can be drawn from performance data for on- and VIP off-campus IE/OR graduate students. As with students in the ECE sample, IE/OR off-campus degree students offered a mean higher level of performance than either their on-campus degree or off-campus non-degree counterparts (3.41, 3.35, 3.06 respectively). Though the ANOVA (See Table #7) testing for statistically significant variations in performance between groups was found significant (.01 level), with the removal of effects from off-campus non-degree students through post-hoc analysis, on- and off-campus performance differences were found to be inconsequential.

TABLE #7

PERFORMANCE DATA FOR ON- AND OFF-CAMPUS INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH GRADUATE STUDENTS

Description

Grad QPA	All	(Ctgry #4) On-Campus IE/OR Degree	(Ctgry #5) Off-Campus IE/OR Degree	(Ctgry #6) Off-Campus IE/OR Non-Degree
n	301	83	66	152
Mean	3.22	3.35	3.41	3.06
Median	3.41	3.45	3.50	3.22
StDev	.720	.603	.467	.831

One-Way ANOVA: Mean Graduate Performance by Student by Category: Industrial Engineering/Operations Research

```
Ctgry ---+---------+---------+---------+---
  #4               (-----*-------)
  #5                 (-------*--------)
  #6   (---*-----)
      ---+---------+---------+---------+---
Grad QPA 3.00      3.20      3.40      3.60
F=7.27:  Significant at the .01 level
```

No statistically significant performance variations (on-campus versus off-campus) were found when those IE/OR course sections which met the study's threshold were subjected to analysis of variance. This parallels observations found among the sample of students in Electrical & Computer Engineering.

OBSERVATIONS AND CONCLUSIONS

Characteristics

Available data support the contention that off-campus video-based degree-seeking engineering graduate students are, with the exception of age, degree age, and undergraduate performance, quite similar to their on-campus peers. While off-campus students, in both ECE and IE/OR are chronologically older, have higher degree ages, and poorer undergraduate records, their scores on the GRE are comparable. The sole exception to this being that off-campus ECE/VIP students tend, with a .01 level of significance, to score higher on the GRE verbal test.

The closeness of the characteristics puts to rest the shibboleth that off-campus participants are inferior to their on-campus colleagues. Parenthetically, data on age tends to diffuse those who argue that student skills will diminish as they get older. In fact, there are clear (albeit statistically insignificant) suggestions throughout the raw data indicating better performance with advancing time.

Predictive Abilities

Traditional quantitative measures (chronological age, degree age, GRE verbal, quantitative, and analytic test scores, and undergraduate quality grade point average) offer marginal ability to predict graduate performance. Further, data support the contention that these criteria are better suited to predict the behavior of on-campus students then they are for the non-traditional students. It is increasingly clear that non-formal attributes, including such factors as experience and determination, play significant roles in impacting upon off-campus student performance.

While the correlation of these and other qualitative characteristics need to be more fully explored, admissions officers and faculty should be minimally cognizant of their potential importance. This is particularly the case in light of the weakness exhibited by the traditionally accepted quantitative indices upon which they had previously relied.

Performance

In both Electrical & Computer Engineering and Industrial Engineering/ Operations Research, the mean graduate performance for off-campus degree students exceeds the mean recorded for on-campus degree students. Mean performance for off-campus non-degree students falls below students in the other two groups. Though off-campus degree students offer a higher mean level of performance, differences between their performance and those evidenced by on-campus students are not statistically significant. This data is complemented by performance analysis on a course-by-course basis. In 98% of the cases, no statistically significant performance variations were found between on- and off-campus degree students enrolled in the same course.

These data tend to fly against those who purport that ITV in general nor its "candid classroom" variant in particular are able to support quality instruction. Further, it casts doubt on prior research (Gibbons, 1977) which hypothesized that quality performance by off-campus video students requires moderately sized groups supported by a local tutor whose function was to promote discussion and bring theory down to an applications level. While this may be an ideal situation, the data show that it is not necessary.

Conclusions drawn from the data can be logically extended to refute those who purport the need for local tutors and real-time interaction to assure quality in off-campus video-supported graduate engineering education. If off-campus students studying using videotape delivered instruction perform at levels that do not significantly vary with those recorded by on-campus enrollees, why install systems and programs that require real-time study and suffer problems resulting from the loss of flexibility?

One need not dig deeply to detail disadvantages inherent in those efforts offering real-time participation as the sole instructional methodology. In the first instance, instruction will be limited to students in those companies willing to adopt the released or flex-time policies required to support employee attendance during normal work hours. In a parallel vein, the real-time requirement drastically reduces the viewing flexibility that many feel to be ITV's prime benefit. Third, in real-time systems, viewers lose the ability to stop, rewind, and replay unclear portions of lectures on an as-needed basis or to stop the tape in order to discuss its content. Without the on-site presence of videotapes, students are not afforded the opportunity for later review.

The last disadvantage relates to the inherent conflict between work and class participation inherent in real-time systems. Decker and Tilles (1973) related that in 1971, program administrators at Lawrence Livermore Laboratories recorded a high drop-out rate among engineers participating in an interactive video program. As attrition approached 50%, it became apparent that employees withdrew most often due to work-related time pressures than to course content. On-the-job travel was often cited as the factor making it difficult for engineers to keep-up. When Livermore moved to a non-interactive videotape system, not only did the drop-out rate decrease to 10%, but the level of participation increased five fold. To further illustrate the important of flexibility, one need only take note of the experience of the National Technological University, a unique satellite-based consortium of over 20 of the nation's college's of engineering joined to deliver graduate level continuing engineering education. While interactive satellite reception is available, a large number of corporate receive-sites record the programs on videotape for internal use by their employees at convenient times.

Again, if research could indicate that real-time interactive systems offered a delivery system capable of significantly improving performance over that recorded for by traditional students, the disadvantages detailed above could be counterbalanced. However, given the performance record of videotape students vis-a-vis their on-campus colleagues, this seems not the case.

While confidence exists in the credentials and performance of off-campus degree students, problems continue among those off-campus non-degree participants. These are individuals who register for individual courses without formal admission into the University's degree program. In both majors, ECE and IE/OR, mean non-degree performance was below those registered by traditional on-campus and off-campus degree students. Additional concern for students in the non-degree category results from their significant attrition. Within the total population, 50% of off-campus non-degree students withdrew prior to a course's completion. In IE/OR, off-campus non-degree attrition was at the 30% level.

Unfortunately, given that the University of Massachusetts' Graduate School's Non-Degree application only requires notation of date of birth and the receipt of an undergraduate degree, little quantitative analysis could be accomplished to explain this problemmatic phenomenon. While this is a problem worthy of further study, it does not detract from the firmly-based conclusions detailing both the strengths and quality graduate performance of off-campus degree students enrolled in non-tutored videotaped instruction.

While few would argue that in the best of all possible worlds, industry's employees should be afforded access to all opportunities available to their on-campus counterparts, problems of student and faculty time, distance, and scarce local resources combine to limit reaching this goal. ITV has become a more than reasonable alternative. Research continues to support videotape as one avenue providing an effective and efficient delivery mechanism and one whose benefits far outweigh and exceed any inherent limitations. The studies, offering conclusive evidence of "candid classroom" credit instruction as an effective tool in supporting industry's training and educational needs, support the efforts of those colleges and universities, including the National Technological University, whose use of technology now enables academic programming to reach individual learners, wherever they are, and at times convenient to their particular needs.

RESOURCES

Baldwin, Lionel and Down, Kenneth. Educational Technology in Engineering. Washington, D.C., National Academy Press, 1981.

______________________________. "New Modes for Advanced Engineering Education." Engineering Education, 1983, 73 (5), pp. 384-385.

Decker, W. D. and Tilles, A. "Continuing Education: A Growth Program in our Laboratory." Engineering Education, 61, (8), 1973, p. 907.

Gibbons, J. F., Kincheloe, W. R., and Down, K. S. "Tutored Video Instruction." Science, March 1977, 195.

Stone, Harvey R., "Effectiveness of Mediated Education in Support of Off-Campus Technical Learners: Resolving Supply Demand Problems." Issues in Higher Education, Vol. 23. Washington, D.C., 1987.

______________., "Comparative Characteristic Analysis of On-Campus Resident and Off-Campus Video-Based Engineering Graduate Students and their Implications." IEEE Transactions on Education, Vol. 30, 2, 1987.

______________. Comparing the Capabilities of Traditional Quantitative Admissions Criteria in Predicting Performance for On- and Video-Based Off-Campus Engineering Graduate Students. Unpublished manuscript. University of Massachusetts, Amherst, MA, 1987.

THE AUTHOR

Dr. Harvey Stone currently serves as Special Assistant to the Dean of the University of Massachusetts' College of Engineering. He was previously responsible for the development of the College's Office of Extended Engineering Education and with it, the Videotape Instructional Program. His current research interests include factors effecting learners involved in mediated courses and institutional factors impacting upon course delivery and acceptance. He is currently involved in a study seeking those factors that promote or impede faculty participation in video programming.

INDIVIDUAL CHARACTERISTICS AND THE PROBABILITY OF TELECOURSE ENROLLMENT: AN EXAMINATION OF STUDENT CHOICE

Paul W. Grimes
Mississippi State University

Joyce E. Nielsen
Western Illinois University

James F. Niss
Western Illinois University

INTRODUCTION

In recent years many American colleges and universities have actively targeted non-traditional adult students by devoting considerable resources to external degree programs. The phenomenal growth of these programs, in which students can earn college credit toward a degree without on-campus residency requirements, has been due to a variety of factors. The falling numbers of the "college age" population, financial considerations caused by declining on-campus enrollments, and increases in the demand for college-educated labor have all contributed to the establishment of external degree programs.

A wide variety of delivery formats are currently being used by institutions offering classes to non-resident students. The most common delivery format is the "extension class" in which the school sends an instructor to a remote site to teach in the traditional lecture style. Many institutions also offer credit through the use of "telecourses" whereby lessons and lectures are televised to students living away from campus. Other popular formats include independent study classes and self-paced computer-managed courses. Thus, while the particular details of class formats vary from institution to institution, students enrolled in external degree programs often face a choice regarding the instructional format by which their courses are delivered.

From an administration perspective it is important to know what mix of delivery formats is best suited for a targeted student body. Colleges and universities are constantly facing questions of resource allocation and the cost per credit hour generated can vary greatly between the various external course formats. The cost of providing an extension course may only involve renting a classroom from a local school and paying the salary necessary to compensate an instructor, while the capital requirements of producing and broadcasting a telecourse are relatively high (particularly for small student markets). The selection of course delivery formats is therefore dictated by economic factors.

An administrator choosing what appears to be the "least expensive" delivery format may be making a less than optimal choice if the decision does not account for the propensity of students to enroll in certain course formats. Specifically, students may be more likely to take a class offered in one format relative to another format. Student preferences may cause them to be attracted to one type of delivery method and to "shy away" from other course formats. If student enrollments vary depending on delivery format offered, the "least expensive" choice may not be the most economic choice. Given today's economic realities, the ability to forecast student enrollments across alternative course formats is critical, yet researchers have previously ignored this problem.

This paper presents an analysis of student choice between two external course delivery formats. Utilizing a sample of students enrolled in an external degree program, an econometric model is developed to determine the probability of student enrollment in a telecourse relative to enrollment in a traditional extension course. The second section presents a brief description of the institutional setting of the project and an overview of the selected sample. The econometric model is developed in the third section. The paper concludes with a section presenting the results and conclusions drawn from the estimation of the model.

THE DATA

Our examination of student choice between external course formats was conducted within the institutional context of Western Illinois University (WIU). Located in Macomb, a town of 20,000 residents, WIU serves approximately 12,000 students enrolled in more than 50 undergraduate majors and 32 graduate programs. WIU is the sixth largest public university in the state of Illinois.

Due to demographic shifts in the regional population base, WIU has experienced declining rates of on-campus student enrollments in recent years. As a result, resources have been appropriated from the state to develop course offerings for students living off-campus within the west central region of Illinois and southeastern Iowa. WIU faculty teach extension classes at approved sites within the region and the University has been offering telecourses since the Fall 1983 semester. Currently, WIU grants credit for nationally syndicated telecourses as well as locally produced classes.

Telecourses at WIU are coordinated through the Independent Study Program office and are broadcast over the public television stations of the regional CONVOCOM network. Founded in 1976, CONVOCOM is a telecommunications consortium of several large colleges and universities within the region. CONVOCOM extends public television service to approximately 2 million people living in a 32,000 square-mile area.

Many of the students enrolling in off-campus courses are adults seeking a degree through WIU's Board of Governors Bachelor of Arts (BOG/BA) degree program. Students in this external degree program can earn a baccalaureate degree through their successful completion of off-campus courses. BOG/BA students can apply credits earned through telecourses, extension classes, independent study classes, and work at other colleges toward their degree. There is no campus residency requirement.

To evaluate student choice regarding external course formats, a survey questionnaire was given to BOG/BA students enrolled in telecourses and students taking extension classes at one of WIU's off-campus teaching sites. The survey was taken during the Spring 1987 semester. Telecourse students were surveyed through the mail, and extension class students were surveyed in class by their instructor. Information was collected on a wide variety of student characteristics and endowments.

Table 1 reports selected demographic characteristics, by course format, of the students comprising the sample. While the group characteristics are similar in many respects, the groups are not completely homogeneous.

The groups do not reflect significant differences in sex or race. Both the extension class group and the telecourse group are dominated in numbers by male students. Students belonging to racial minorities make up a little more than six percent of both groups. The similarity in the sex and race characteristics suggests that the choice between course formats may not be strongly influenced by these personal variables. However, the data indicate that the average age of the telecourse group is nearly eight years older than the extension class group. Age may thus be an important determinant of course format choice.

With regard to employment status, the survey suggests that telecourse students are more likely to be full-time workers than are extension class students. Also, students who do not work at all are more likely to enroll in an extension class relative to a telecourse.

Table 1 shows that the telecourse group is more evenly spread over the range of class ranks when compared to the extension class group. The fact that no freshmen or sophomores appear in the extension class group is most likely due to the institutional arrangements of the BOG/BA program at WIU. Many students enroll in the BOG/BA degree program after completing a year or two of course work from their local community college. The extension courses offered by WIU cannot be taken from the local community colleges. Thus, while not all extension courses are upper-division classes, most of the students have enough earned credit to be classified in the higher ranks. It is interesting to note that Table 1 indicates that non-resident graduate students are equally represented in the two course formats.

The questionnaire asked students what degree level they expected to receive in their lifetime. Surprisingly, a majority of students in both groups expect to eventually obtain a graduate degree. In fact, more than seven percent of the telecourse group expect to earn a doctorate. The lofty degree aspirations of off-campus students should not be overlooked.

Surveyed students were also queried about their motivation for taking the course. The most popular response for both groups was that the course met a degree requirement. Approximately one quarter of both groups took their course as an elective. Differences in student preference for course format appear for those students taking a course for salary advancement and personal growth. A larger percentage of telecourse students responded that

TABLE 1

SELECTED DEMOGRAPHIC CHARACTERISTICS OF STUDENT SAMPLES

Percent	Extension Class Students	Telecourse Students
Sex		
Male	56.25	63.74
Female	43.75	36.26
Race		
White	93.75	93.40
Other	6.25	6.60
Employed		
Full-Time	64.58	84.62
Part-Time	22.92	12.09
Not Working	12.50	3.39
Class Rank		
Freshman	0.00	1.10
Sophomore	0.00	7.69
Junior	52.08	30.77
Senior	29.17	42.86
Graduate	14.58	13.19
Other	4.17	4.39
Degree Expectation		
A.A.	2.08	2.20
B.A.	35.42	34.07
M.A.	62.50	56.04
Ph.D.	0.00	7.69
Course Motivation		
Required	47.92	45.05
Elective	25.00	24.18
Salary	2.08	12.09
Growth	25.00	18.68
Miscellaneous		
Telecourse Experience	20.83	49.45
Own VCR	66.67	82.42
Long Distance	0.00	70.33
Average Age	30.56	38.55
Sample Size	48	91

their enrollment was motivated by salary considerations, and a relatively larger percentage of extension class students were motivated by the desire for personal growth.

Students enrolled in a telecourse were more than twice as likely to have taken a telecourse previously. Successful experience with a telecourse apparently influences future enrollment. The biggest difference between the two groups involves the geographic location of the student's place of residence. The "Long Distance" variable reported in Table 1 indicates the percentage of students living fifty miles or more from the extension class site. No student reported traveling this distance to attend an extension course. However, more than seventy percent of the telecourse students reported living beyond the fifty-mile radius. As expected, the statistics suggest that the convenience of taking a telecourse from a remote location is important in a student's choice of course format.

The demographic characteristics of our sample are similar to those of other external degree student samples reported elsewhere (see Brey and Grigsby). While descriptive data such as that reported in Table 1 offer insights into the factors that may influence a student's choice between course formats, a more elaborate statistical analysis is needed to identify the relative importance of each factor.

THE MODEL

A student's decision regarding the format of the courses in which to enroll is an economic choice between two or more competing alternatives. As with any choice, many factors may influence an individual's decision. Economic theory and previous studies regarding student retention in external courses (refer to Research Communications and see Maher) suggest that a variety of personal characteristics and endowments will determine the selection of course formats by students. Let us assume that the following functional relationship holds true:

Course Format Choice = f(Personal Characteristics, Employment Status,
Geographic Location, Previous Experience,
Degree Aspirations, Class Rank)

This type of relationship can be empirically investigated utilizing probit analysis and the data collected from the student survey.

Each of the students in the sample faced a dichotomous (two alternative) choice regarding the format of the course they chose to take. As non-resident students, they could enroll either in a telecourse or in an extension class. Probit analysis is designed to estimate the probability of an individual making a particular decision when faced with such a dichotomous choice (probit analysis is often used in studies regarding voting behavior). Statistically, probit analysis is analogous to standard regression techniques when the dependent variable reflects a two alternative choice. (For an excellent explanation of the probit technique, see Pindyck and Rubinfeld, pp. 280-285.)

The probit model is based on a threshold form of behavior. In our application, we hypothesize that student characteristics and endowments interact to determine the value of a decision variable. If the value of the decision variable is above the threshold level, the student chooses one direction. If it is below the threshold level, the student decides in the other direction. The parameter estimates of the probit model indicate both the sign and magnitude of the various characteristics in the decision function.

A probit model based on the functional relationship described above to estimate the probability of a student enrolling in a telecourse relative to enrolling in an extension class can be easily constructed. The variables in the following form were taken from the survey data to proxy the functional relationship:

CHOICE = 1 if student enrolled in telecourse; 0 if student enrolled in extension class

SEX = 1 if male; 0 if female

RACE = 1 if white; 0 if other

AGE = number of years old at time of survey

FULL-TIME WORK = 1 if student working full-time; 0 otherwise

PART-TIME WORK = 1 if student working part-time; 0 otherwise

LONG-DISTANCE = 1 if student lives at least 50 miles away

PREVIOUS TELECOURSES = 1 if student reported completing telecourses prior to enrollment

SEEKING DEGREE = 1 if student is actively seeking a degree; 0 otherwise

CAMPUS ENROLLMENT = 1 if student is also taking courses on campus

REQUIREMENT = 1 if course required for degree program; 0 otherwise

CLASS RANK = 1 if student is at least a college junior; 0 otherwise

The probit equation can thus be written as:

$$\text{CHOICE} = \text{CONSTANT} + B_1(\text{SEX}) + B_2(\text{RACE}) + B_3(\text{AGE}) + B_4(\text{FULL-TIME WORK}) + B_5(\text{PART-TIME WORK}) + B_6(\text{LONG-DISTANCE}) + B_7(\text{PREVIOUS TELECOURSES}) + B_8(\text{SEEKING DEGREE}) + B_9(\text{CAMPUS ENROLLMENT}) + B_{10}(\text{REQUIREMENT}) + B_{11}(\text{CLASS RANK}) + \text{ERROR TERM}$$

where the B's represent the probit parameters to be estimated. The values and magnitudes of the probit parameters estimate the direction and degree of influence each independent variable places on the probability of an external degree student deciding to enroll in a telecourse.

RESULTS AND CONCLUSIONS

The results of the estimated probit model are reported in Table 2. Statistically, the model appears to fit the relationship rather well, given the cross-sectional nature of the data. The R^2 statistic indicates that the independent variables account for approximately 67% of the observed variation in the decision to enroll in a telecourse.

Examination of the estimated model parameters reveals that five of the coefficients obtain levels of statistical significance. The coefficients for AGE, PART-TIME WORK, LONG-DISTANCE, PREVIOUS TELECOURSES, and SEEKING DEGREE all are significant at acceptable statistical levels. Thus, these variables are found to have the most important influence on the probability of telecourse enrollment relative to extension class enrollment.

Interestingly, each of the significant coefficients is positive. The positive age coefficient indicates that older students are more likely to enroll in a telecourse than are younger students. Also more likely to take a telecourse are students who are employed on a part-time basis, students with previous telecourse experience, and students actively seeking a degree. And, as expected, the LONG-DISTANCE coefficient indicates that students living at locations far from teaching sites have a much greater probability of taking a telecourse rather than an extension class.

The absolute size of the coefficients indicates the relative importance of the variables in the determination of choosing the telecourse format. In descending order, the significant coefficients can be ranked as LONG-DISTANCE, PART-TIME WORK, SEEKING DEGREE, PREVIOUS TELECOURSES, and AGE. The results indicate that the student's distance from the teaching site is more than three times as important in the decision process as degree seeking and employment status and more than four times as important as the student's age.

Such results are not surprising. Telecourses are a convenient method for non-resident students living in remote locations to continue their educational experience. Students with part-time work responsibilities may

TABLE 2

PROBABILITY OF TELECOURSE ENROLLMENT: PROBIT REGRESSION ANALYSIS RESULTS

VARIABLE	COEFFICIENT	t-STATISTIC
Constant	-3.071	-0.661
Sex	-0.005	-0.012
Race	-0.191	-0.225
Age	0.063	2.646***
Full-Time Work	0.951	1.371
Part-Time Work	1.362	1.713*
Long-Distance	4.054	2.391**
Previous Telecourses	0.678	2.155**
Seeking Degree	1.225	1.826*
Campus Enrollment	-4.163	-0.974
Requirement	-0.353	-0.856
Class Rank	-1.363	-0.316
R^2	.67	

* significant at the .10 level
** significant at the .05 level
*** significant at the .01 level

not have the opportunity to reconcile regular class meetings with their schedules and therefore opt for the telecourse format. Non-resident students actively pursuing a degree appear to enroll in telecourses as a means of securing necessary course work. Older students may have relatively greater degrees of self-motivation necessary to succeed in a telecourse environment. And, previous telecourse experiences appear to create positive reinforcement for any student to enroll in additional telecourses.

The current results indicate that students with different characteristics and endowments do make different choices regarding external course formats. Once the determinants of student preference are known, administrative decisions concerning the selection of course delivery formats become easier to make.

This paper has attempted to examine the decision of students to enroll in telecourses using an ad hoc model of student choice based on elementary economic theory. The results indicate that student choice is dependent on a variety of personal characteristics and endowments. A formal model that can explicitly explain and predict course format choice by students has not yet been developed. To accomplish this, additional research is needed in the overlooked area of student enrollment behavior.

REFERENCES

Brey, R. and Grigsby, C. "A Study of Telecourse Students 1984." A report prepared for the Annenberg/CPB Project, Washington, DC, 1984.

Maher, Thomas G. "Persistence and Withdrawal of Adult Telecourse Learners." Doctoral Dissertation, University of Southern California, Los Angeles, CA, Spring 1985.

Pindych, R., and Rubinfeld, C. Econometric Models and Economic Forecasts. New York: McGraw-Hill, 1981.

Research Communications, Ltd. "A Survey of Dropout Students from the Annenberg/CPB Telecourses in the Fall of 1984." A report prepared for the Annenberg/CPB Project, Washington, DC, 1985.

New Opportunities in Distance Learning

Daniel Granger
SUNY Empire State College

Education in the United States is currently caught on the horns of a dilemma best captured in the apparent conflict between the current Secretary of Education and his immediate predecessor. The current Secretary, William Bennett, underscores his criticism of higher education by complaining that it costs too much. The former Secretary, Terrell Bell, insists that the U.S. must increase and improve access to education for its citizens in order "to secure the blessings of liberty." Parents of college-age students must agree with Dr. Bennett, while most educated Americans recognize the urgent importance of Dr. Bell's plea.

The Bell-Bennett debate, or any other polarizing snapshot of higher education, projects a tension between pressing need and limited resources. The cost of a four-year college education can be as high as $100,000, and rarely less than $25,000. Even educators, unless aided by institutional subsidies, must think carefully about the "investment" they will make in their children's education. A dean at NYU suggests that "Universities may already be pricing themselves out of a middle-class market" (London, 1987, p. 18).

Students (and their parents) are voting with their wallets. The four-year uninterrupted undergraduate career is fast becoming a luxury of the minority. Harold Hodgkinson tells us that almost half of all undergraduate students are over 25, enrolled only part-time, non-residential, and holding jobs. This suggests that perhaps we are not facing the very costly either-or we anticipated (either to mortgage one generation to educate the next or to see U.S. culture slip into mediocrity), but U.S. educators have not yet been very intentional about proposing or developing firm and clear alternatives. The four-year program continues to be the standard, and other options, such as through adult or continuing education programs, must continually defend their integrity and respectability, while usually paying their own way.

Internationally, the need for higher education has been no different. However, traditional institutional resources for education have been much more limited. Consequently, as a result of social as well as economic pressures, new models of education, under the general rubric of "distance education," have been developed which are free of the capital-intensive overhead of a traditional campus program, but which use new pedagogies and technologies to provide educational programs often comparable to or superior to traditional classroom instruction. In England, Canada, Spain, Australia, Japan, Germany, as well as many other countries in South America, Africa, and Asia, educational programs and institutions have been established which offer a strong blend of effectiveness and efficiency.

There are several general models of distance programs, making more or less use of existing resources, and they virtually all share pedagogical goals with which we are familiar through adult education and the broader movements for reform of recent years. Probably the most familiar distance learning institution is the Open University in Britain, enrolling close to 100,000 students a year (and still with a one- to two-year waiting list). The brainchild of the Labor Party in the 1960's, the Open University is now fully supported by Margaret Thatcher's government because of its effectiveness.

The Open University is by no means a shoestring operation, however. Individual courses may cost a million pounds or more to develop, drawing on the best talent available. Its founders recognized that its survival depended on its ability to become and be seen as a first-rank university. Consequently, no expense was spared either in the development or the production of the course material. Printed materials are attractive and well designed. Even special studios of the BBC were established at OU headquarters to prepare electronic course components.

Program delivery is also thoroughgoing at the Open University, with 13 fully staffed regional centers, many more community study centers, and ready availability of faculty course tutors, either for individual or group contact. Summer school sessions also bring students together from around the country once a year.

The Open University is considered by some other distance institutions as the most affluent, perhaps lavish, model of distance education. At the same time, these critics readily admit that this has been necessary to establish the credibility and respectability of distance education globally, and most programs now trade on the recognition gained by the OU. Some national programs are virtually clones of the OU, and OU courses have been used or adapted by a number of institutions. Still, the annual cost per student is only 50% to

60% of the cost at a conventional university (Commonwealth Secretariat, 1987, p. 50).

Other models of distance learning programs differ more or less from the OU model primarily in terms of their access to academic resources such as the faculty responsible for developing courses, the technical level of their instructional materials production, and the methods used for the delivery of those courses. In Canada are at least three distinct models in three different provinces, from one most like the OU, Athabasca University in Alberta, to a distance program based within a conventional institution at Laurentian University in Ontario, to a very streamlined model with no faculty of its own, the Open Learning Institute in British Columbia.

Athabasca University, located in the Athabasca Valley of Alberta, is remote from other educational resources. Like the OU, it is almost self-sufficient, with a full faculty and course development staff. It even physically resembles a conventional university campus. Its students, however, are spread throughout Alberta province.

Laurentian University, in Sudbury, Ontario, also resembles a conventional university campus, because it is one. In addition, however, it serves a great number of students in northern Ontario through its distance learning program. The courses are developed by university faculty, following special course development guidelines prepared for them.

Lastly, the Open Learning Institute in British Columbia works in close collaboration with the traditional universities in B.C., the University of British Columbia, the University of Victoria, and Simon Fraser University. OLI academic staff coordinate the course development efforts, drawing on the academic expertise of the universities' faculties.

Laurentian University and the joint efforts in British Columbia represent versions of what is often called the 'dual mode' institution -- offering both classroom and distance education through the same academic and institutional resources. This 'dual mode' is also common in Australia, where, as the former head of Deakin University put it, it was "a brute necessity" (Jevons, 1986, p.1). As in the Canadian provinces, Australian universities have a mandate to serve a student body spread over a large area, unable to come together easily (or ever) for education.

In these dual mode settings, the transfer from the classroom teaching mode to the distance learning mode has often resulted in a recognition that materials developed for the distance mode could be used even in the classroom. At

Deakin, this was recognized and encouraged in the late 1970's (Jevons, 1986, p.1). In fact, there seems to be, among students and even faculty, a voluntary move toward these materials for their instructional utility. While one rarely finds reference to this in print, I have been told by a director of a distance education program at the University of Lagos in Nigeria that residential students attending classes will seek out the distance learning materials for their courses, presumably because of the superior presentation. Similarly, in England, faculty in conventional universities will use the Open University course materials for ideas on classroom presentation.

This migration toward materials and a model almost alien to the classroom instructional format, as well as much cheaper, at first seems curious, if not contrary and subversive. Is distance education simply a large-scale, institutionalized set of Cliff's Notes?

An examination of the literature and theory of distance education suggests the answer is a resounding "no." Many of the concerns about active involvement in the learning process and attention to the needs and interests of individual students have been addressed in distance learning programs from their inception. The recommendations of such educators as Alexander Astin, Arthur Chickering, Zelda Gamson, and Ernest Boyer are often realized in distance programs, and the theoretical concerns of distance educators align very closely with those of many educators, especially adult educators, in the U.S. What this similarity suggests is that, with a better understanding of a fully developed alternative educational system, American educators can be more intentional and deliberate about fostering the emergence of one or more new possibilities to serve American students effectively and efficiently.

Among current concerns of distance educators can be found ← not only a general interest in increasing students' active involvement in education, but also specific interests in establishing clear linkages between students' learning and their context, including their cultural context. Equally important is the attention paid to responding to the needs and interests of individual students, with the goal of building and supporting independence in learning.

Distance learning, of course, by definition requires some separation, physical or metaphorical, between the student and the sponsoring institution. Consequently, most distance learning programs go to great lengths to establish the "idea of the university" firmly in the students' consciousness, through an interconnected web of print material, interactive study guides, mediated components, and various kinds of linkages between and among students and faculty. These can involve actual group meetings, phone calls or teleconferences, interactive video conferences, and even asynchronous computer conferences. A critical difference, then, between these linkages and traditional classrooms is the *necessary* active participation of the student in the learning process.

Alexander Astin, one of the co-authors of *Involvement in Learning* as well as one of the prime movers behind the current "value added" movement, explained in his own book, *Achieving Educational Excellence*, that "involvement refers to the investment of physical and psychological energy in various 'objects' . . . either highly generalized (the student experience) or highly specific (preparing for a chemistry examination)" (Astin, 1985, p.134). Distance education requires that investment, at least at a surface level. Distance educators seek to refine that engagement of the student in learning still further, through the notion of an ongoing dynamic interchange between the student and tutor.

This interchange has been variously called an "academic exchange,"" and an "academic dialogue." The distance researcher Borje Holmberg has refined and developed hypotheses about what he calls the "guided didactic conversation," intended to establish and maintain a personal rapport about the course content between student and tutor. Some of its characteristics are:

- Readily accessible presentations of subject matter
- Explicit supportive advice and suggestions about what to do and avoid
- Open invitation to an exchange of views and questions
- Attempts to involve student emotionally by reference to and inclusion of applications linked to the student's own context.

Pedagogically, Holmberg hypothesizes that a successfully guided didactic conversation will build the student's confidence in the supporting organization and its intention to make the subject matter personally relevant to him or her, resulting in stronger motivation on the part of the student and more effective learning (Holmberg, 1986B, pp. 11-12).

All students, of course, come to education from a range of backgrounds and contexts, and the current interest in "learning communities" represents an effort to shape a context supportive of and conducive to learning. Both traditional and distance educators have recognized that the context for that learning, to be fully effective, must extend out to the realm of practical experience with which the student is familiar. Not only will this reinforce the learning process through application -- problem solving, simulations, apprenticeships, or actual 'real world' operation -- but the context connection can provide bridges from old learning to new and can be used as learning resources for fellow students and even faculty (Holmberg, 1986A, p.30; Jarvis, 1987, p.156; Chickering, 1987, p.5; Wright, 1987, p.3; Rebel, 1987, p.22).

This context connection needn't be limited to "relevant" studies, but can be used to make various studies relevant. William Bennett and E.D. Hirsch, among others, are very concerned about our common cultural heritage. In a work for which William Bennett wrote the afterword, Challenges to the Humanities, Chester Finn and Diane Ravitch wrote:

> One way of defining [the humanities] is by listing the subjects that they have traditionally included: history, literature, philosophy, and so on. These disciplines should be seen, we believe, not as airtight boxes into which subject matter is locked, but as different ways of fathoming the complex whole of human experience. To study them is to learn the story of human struggles to survive, to dominate others, to live together, and to reflect on life; the humanities, collectively, represent the efforts that people have made to understand and interepret their experience. (Finn, Ravitch, & Roberts, 11)

Bennett himself goes on to make that context connection more explicit in his afterword: "An argument for the humanities is an argument neither against practicality nor against "practical" education. Education ought not to be severed from matters of job, training, and career" (Finn, Ravitch, & Roberts, 204).

Distance educators have recognized the pedagogical as well as cultural value of expanding experiential linkages with learning from immediate activities to their larger context of application -- in effect, to provide a historical or philosophical perspective for the work that students undertake every day (Granger, 1986). This is certainly one approach to achieving what Allan Bloom calls a "unified view of nature and man's place in it" (Bloom, 1987, 147).

The focus on these contextual connections requires a fairly close attention to the needs and interests of the individual student, achieved in different ways. The Open University, for instance, requires students to begin their studies with a foundation course taught by a tutor/counsellor. During the course this tutor/counsellor becomes familiar with each student's strengths, weaknesses, and interests, then remains that student's counsellor throughout his or her OU career. At Empire State's Center for Distance Learning, each student has a mentor, who works with that student through a complex educational planning process, establishing a close familiarity with the individual's learning needs and learning context.

Building individual learning skills and capacities is probably the area of most common overlap between distance learning and developments in U.S. education, particularly adult education. Stephen Brookfield makes the important point that self-directed learning is a goal, not a given, for adult students, and distance educators offer various methods of achieving that goal (Brookfield, 1986). Borje Holmberg considers student autonomy an essential factor in distance education, higher education, and adult education. He notes the advantages of distance learning in fostering this individual autonomy:

> The distance student is placed in a situation where he has much greater chances of individually selecting what he is to apply himself to than those conventional students for whom attendance in a classroom is compulsory. This is so because he is provided with -- and works on his own with -- self-instructional material, usually with references to literature of various kinds and with much more individualized tutoring, which he can personally influence to a greater extent through his responses or initiatives than is normal in a classroom situation (Holmberg, 1985, 19; 1987, 11).

The context connection then further aids the student's learning by building on past knowledge and experience, thus empowering the student within his or her context in the best sense: by building knowledge and skills with and within the comprehensive understanding needed to apply that knowledge and those skills effectively. As another European researcher notes:

> The offer of subject content must be so structured as to allow the learner to work from the basis of his own previous experience and knowledge, and from that to gain transferable insights with the aid of his new acquired tools of analysis, to integrate new knowledge with old and to build up a positive attitude to self-directed learning in general. In this context it is important not only to make the student conscious of subject-related objectives but also of general educative goals. . . (Rebel, 1987, 22).

CONCLUSION

The similarity of concerns between distance learning as it is practiced internationally and developments and directions in American higher education seem self-evident. Limited educational resources abroad gave rise to the development of full-blown alternative systems of distance learning, making some or no use of conventional systems. Developments in telecommunications, from satellite transmissions to the interactive capabilities of the personal computer, promise to align efficiently and well with the purposes and the pedagogy of distance learning.

Internationally, various aspects of technology have been called into use, but always in the service of clearly articulated instructional principles. The primary medium of instruction remains the printed page -- and the student's involvement with the subject to be learned. What has been consistent is a clear and firm focus on the objective of successfully educating individual students wherever they are. With a similar focus, we should be able to employ our new technology so as educate all of our students to the satisfaction of both Secretaries Bennett and Bell.

Works Cited

Astin, Alexander. 1985. *Achieving Educational Excellence*. San Francisco: Jossey-Bass.

Bell, Terrel, *et al*. 1986. *To Secure the Blessings of Liberty.* Washington, D.C.: American Association of State Colleges and Universities.

Bennett, William. 1986. Address at Harvard University, published in *The Chronicle of Higher Education*, October 15, 1986.

Bloom, Allan. 1987. *The Closing of the American Mind*. New York: Simon and Schuster.

Boyer, Ernest. 1987. *College: The Undergraduate Experience in America*. New York: Harper and Row.

Brookfield, Stephen. 1986. *Understanding and Facilitating Adult Learning.* San Francisco: Jossey-Bass.

Chickering, Arthur, and Zelda Gamson. 1987. "Seven Principles for Good Practice in Undergraduate Education." *American Association of Higher Education Bulletin*, XXIX, 7, 3-7.

Commonwealth Secretariat. 1987. "Commonwealth Cooperation in Open Learning." Summary Report of a Study carried out for the Commonwealth Secretariat by the International Extension College and the Council for Educational Technology.

Finn, Chester, Diane Ravitch, and Holley Roberts. 1985. *Challenges to the Humanities.* Epilogue by William J. Bennett. New York: Holmes and Meier.

Granger, Daniel. 1986. "From Context to Content in Distance Learning." Paper delivered at the International Conference on Distance Education, Vancouver, B. C., May 1986.

Holmberg, Borje. 1985. *Status and Trends of Distance Education*. Lund, Sweden: Lector Publishing.

________________. 1986A. "Improving Study Skills for Distance Students." *Open Learning*, I, 3, 29-33.

________________. 1986B. "A Discipline of Distance Education." Paper delivered at the World Congress on Education and Technology, Vancouver, B.C., May 1986.

________________. 1987. "Student Autonomy in Theory and

Practice." Paper delivered at the International University Without Walls Conference, Vienna, Austria. June 1987.

Jarvis, Peter. 1987. "Three Forms of Learning in Social Context." In Lifelong Learning Research Conference Proceedings. Ed. William Rivera and Sharon Walker. College Park: The University of Maryland. Pp. 153-157.

Jevons, Fred. 1986. "Dual Mode Institutions - The Way Forward." Paper delivered at the International Conference on Distance Education, Vancouver, B.C., June 1986.

London, Herbert I. 1987. "Death of the University." The Futurist, May-June 1987, 17-22.

Mortimer, Kenneth, et al. 1984. Involvement in Learning. Washington, D.C.: National Institute of Education.

Rebel, Karlheinz. 1987. "The Role of Group Learning in Multi-Media Distance Teaching." Open Learning, II, 1, 19-24.

Wright, Tony. 1987. "Putting Independent Learning in its Place." Open Learning, II, 1, 3-7.

Silicon and Ivory
New Pathways to Higher Education

William J. Seaton
Director
Center For Learning Through Telecommunication
Thomas A. Edison State College

> By the year 2000, most educational services in business, industry and schools will be delivered electronically.
> Why?
> More and more people seeking education are adults who have full-time jobs, who can't afford to live on a campus for several years, who often can't arrange to attend classes regularly. Educational services will have to be provided at their convenience in terms of time, place, and pace. And the electronic media are certainly the most efficient and effective ways of doing that. -Malcolm Knowles. Training News 6/87.

An electronic revolution has been taking place in American society. The development of the microprocessor, improvements in computer communications, major breakthroughs in the storage of electronic information, and the advent of new systems of distributed processing have placed unprecedented computing potential within the reach of many middle-class Americans. The dispersment of computer technology was recently noted in the Chronical of Higher Eduction by Elizabeth R. Baer, "So many people use computers comfortably that they are like pencils or calculators"(July 22, 1987).

These trends led Turoff (1982) to propose the concept of an "Electronic University," in which many academic functions would be accomplished through the computer. Students would be "connected" by microcomputers and through modems to a mainframe computer's packet-switched carrier network and [illegible] thereby be accessible to other students and faculty. In fact, there are a number of successful examples of isolated courses offered on such systems. At Thomas A. Edison State College, the idea for such a system grew out of discussions with the New Jersey Institute of Technology faculty, the creators of the first widely used electronic mail system -- Electronic Information Exchange System or EIES.

One might ask the altogether reasonable question of whether the delivery of education via the computer is either feasible or necessary. This issue can be addressed by asking whether an electronic university has any real pedagogical value or simply represents a passing fad. The early evidence (Hughes; Hiltz; Scher and Smith) suggests that students master the subject matter and student-faculty communication may be more effective with on-line connectivity than with traditional classroom techniques. If these early findings (which represent data from a fairly computer literate user group) can be duplicated with a more general student group, then telecommunications is likely to become a permanent part of distance learning.

Electronic communications between faculty and students can be especially important for distance learners where the academic flavor is quite different from that of the traditional college. For many distance learning adult students, a face-to-face event is quite often a rare or nonexistant occasion. There are few opportunities where students can meet and talk to their classmates with whom they may share courses over the semester.

Distance learners -- while typically older, more mature, and better motivated than their "traditional" counterparts -- often express needs which require attention if distance learning is to succeed. Moore (1987) has identified five qualities which distance learners look for in a program.
First, there should be an identifiable body of knowledge which can be learned at a distance. Second, distance learners look for "guidance in study." Because of the isolation factor, students want direction concerning their learning plan and their learning progress. Third, the opportunity to use the knowledge they are learning is important. Through projects, exercises and writings, distance learners expect to be able to apply what they are learning. Fourth, a knowledgeable and helpful response is desired. "How well did I do? Was my approach to the project correct?" are questions which demand a guiding response. Fifth, assistance with nonacademic problems -- such as study skills -- is needed. In general, distance learners want student support services similar to those available to campus students.
This is the goal of the Computer Assisted Lifelong Learning (CALL) Network at Edison State College.

Computer assisted instruction (CAI) and computer managed instruction (CMI) have dominated the use of computers in higher education. While both CAI and CMI will continue to be important factors in higher education, an additional aid to learning, which has not yet attracted wide attention, consists of on-line tutors or mentors. This is the emphasis of the CALL Network. Within the distance learning environment, even the most skillful independent learners sometimes need assistance in grasping a particularly difficult concept. This type of problem can be solved through on-line tutoring, in which faculty could be contacted by students for problem resolution. Through an electronic mail capability, a student can send a message to a mentor concerning a particular problem. The faculty mentor can either solve the problem immediately if both were on-line at the same time, or the mentor can respond the next time he or she joins the system.

Traditional usage of the computer in education has focused upon the delivery of individualized material, such as CAI. The limitation of courseware in this approach, however, is its lack of encouragement of group processes. The students (particularly in distance learning) will still experience an "isolation" from their peers as they are presented with few opportunities to interact with other students -- to work with them and to learn from them. Such a self-centered learning and working environment could be detrimental to the overall mission of institutions of higher learning as we seek to prepare students for responsible and productive roles in society, roles where they will need to work with others (Weisner, 1985). By "networking" the students of distance learning, a "connectivity" between students may be achieved which in many respects could not only mirror the types of group processes which occur on the traditional campus, but even go beyond it in establishing new forms of relationships between students.

To accomplish this end, faculty mentors will use the CALL Network bulletin board system to creatively design and utilize "electronic seminars" as an integral part of the pedagogical process. An electronic seminar will be an interactive task requiring students to work together to achieve some common pedagogical goal, even though they may be geographically separated by hundreds of miles. Representative illustrations of electronic seminars which would be possible on the CALL Network include:

- joint papers prepared by several students.
- group discussions.
- debates.
- guest "lecturers," who will be available to interact with the class group.
- interdisciplinary "meetings" where, for instance, a group of technology students could participate with a group of social science students in a discussion of some new technology.

The point I wish to emphasize is that the mentor of a course on the CALL Network will have at her/his disposal a repertoire of delivery modes from which to select in order to match the educational objectives of the distance learner.

Additionally, distance learners are provided many of the academic support services traditionally found on a campus. The CALL Network is designed to provide the following services:

Orientation Program: will provide students with a general overview of the college and its programs.

Interactive Registration: students will be able to register with the college and take courses.

Interactive Payment of Fees: using VISA or Master Card, the payment of any college fee can be accomplished.

Examination program inquiries: a description of all standardized examinations (CLEP, ACT-PEP, etc.) will be available.

Examination Study Guides: a request for examination study guides can be made and the study guide delivered to the student.

Diagnostic Examinations: students will access a computer diagnostic examination program which will allow them to pretest their level of knowledge in any number of areas with diagnostic remediation provided as needed.

Coursespondence Course Inquires: student will be able to search a data base of nationally available correspondence course programs.

On-Line Advisement: Student will be able to contact an academic advisor to have questions answered and to obtain advice concerning their academic program.

Most critical will be the on-line advisement services. Degree advisors can access a student's academic record on-line and instantaneously provide the necessary advice to the student regarding course requirements, prerequisites, experiential learning, examination opportunities, etc.

Several emerging trends are beginning to influence higher education planning in the United States. Individuals, rather than following the traditional "linear life plan," which finds the formal educational years bunched together for approximately the first third of a person's lifetime, are increasingly following a cyclic life plan. Education plans are now being re-distributed over the "middle third" years (Troll, 1982). Students are seeking to merge educational objectives into individualized packages tailored to personal lifestyles and career-intellectual aspirations. All of this bodes well for the continued growth of distance learning programs. Concurrently, the computer technology for accomplishing the scenarios viewed in this paper is available. Within the next decade, a computer terminal is likely to be as commonplace in the American home as a VCR and the time is ripe to prepare for this new marrriage of computers and education.

BIBLIOGRAPHY

Garrison, D.R. and D.G. Shale "Mapping the Boundaries of Distance Education: Problems in Defining the Field." The American Journal of Distance Education, Vol. 1 No. 1.
Hiltz, S.R. "Evaluation and Impacts." Telecommunications and Higher Education Briefs. NJIT.
Hughes, D. "Teaching English by Networked Microcomputer." Telecommunication and Higher Education Briefs. NJIT.
Moore, M.G. "Learners and Learning at a Distance." International Council for Distance Education Bulletin #14.
Scher, J. and D. Smith, "Today's External Degree College, Tomorrow's Electronic University." Telecommunications and Higher Education Briefs. NJIT.
Troll, L.E. Continuations: Adult Development and Aging. Brooks Cole.
Turoff, M. "The Design of an Electronic University: Telecommunications and Higher Education Briefs. NJIT.
Weisner, P. A Profile of Distance Learners. Dissertation. Rutgers, The State University of New Jersey.

MOTIVATING AT A DISTANCE: LOCUS OF CONTROL

Anna L. Bolling, Ph.D.
St. Edward's University

Adults who enroll in external degree programs are already goal-oriented, but when faced with learning activities that must be accomplished largely independently, they forget their former successes in the working world and become fearful of their abilities in the academic arena. As educators from a distance, we can and must design learning activities that will encompass research methodologies, concepts and theories, and at the same time allow extensive latitude for self-discovery and self-control. In designing learning activities, it is not only important to be creative but to be flexible in the application of the design. When the locus of control of the design is the adult learner, the activity takes on greater meaning, reduces apprehension, and the student becomes the initiator of his own motivation.

A charge frequently made about educators is that we teach as we have been taught. We have relied on traditional models of student evaluation: research papers, reports and examinations. Frequently, then, when first confronted with designing learning activities for adults at a distance, we simply revise syllabi from courses we have taught in traditional classroom settings. Too often we neglect to consider how to motivate an adult who does not have regularly scheduled and repeated contact with us.

Through the application of the approaches of motivational-productivity theorists, we, the academicians, can enhance student motivation, self-discipline and self-control by focusing on the student's expectation of learning outcomes in a given course area. For example, Victor Vroom's Expectancy Theory identifies for us that when an individual can see the value of the outcomes of a given effort, his motivation to succeed in that effort is increased. The smaller we can make the gap between expectancy and outcome, the greater the motivation toward that outcome. We can surmise, therefore, that if the expectancy can be heightened, or the gap diminished, by establishing learning activities and evaluation of learning in areas of student interest and familiarity, we can increase motivation, self-control, and academic success.

One of the most common instruments used by institutions involved with distance learning is a learning contract. These learning contracts may vary in structure, but most identify specific learning objectives and observable learning outcomes. What the designer of the learning contract may consider specific and observable, however, does not necessarily conform to the expectations or needs of the adult. One of the most successful ways to bridge the expectation gap is to have the student design a project which either her or his organization will recognize as having successfully demonstrated acquisition of learning of identifiable course objectives. For example, in a Personnel Management learning contract, rather than requiring a traditional research report on the purpose and design of job descriptions, the adult applies information gained through a review of the literature by discussing his research with his organization's Human Resource Director and then actually writing the job descriptions for his specific department or division. The completed project to be evaluated by the instructor would, therefore, include an annotated bibliography of his research, the job descriptions and a letter of evaluation from the Human Resource Director. Or a student interested in performance appraisals, after reviewing the literature, could contact various organizations and examine their appraisal systems. Through an evaluative process, the student then could design a new appraisal system which incorporates the principles of Management by Objectives and ultimately submit for evaluation his appraisal system, along with an annotated bibliography and comment letters from the other organizations.

Guidelines for such project, of course, need to be agreed upon by the instructor and the student, but by providing the adult this flexibility, the learner has input into the learning outcomes and is both intrinsically and extrinsically motivated. In one such case, a head nurse designed a project which realigned duties in a cardiac unit, requiring revised job descriptions and staffing needs. Her research included literature on job descriptions, time and motion studies and budgeting. Her completed project included an annotated bibliography, a proposal to realign the duties, job descriptions, a flow chart, and a letter from her Director of Nursing accepting the proposal and promoting the student to Assistant Director of Nursing. What more could an evaluator want!

Not all courses of study are so directly work-related as these examples, but with guidance, adult students can design projects that incorporate their recreational interests and real-life experiences. A student studying King Lear, for example, can explore the themes of ungrateful children and sibling rivalry in television dramas, recreational readings and personal experiences. Instead of a traditional report on the themes in King Lear, the adult student conducts interviews with psychologists, parents of all ages, children of all ages, critically reviews how the themes are developed in modern media and ultimately submits a project designed to show the causes and effects of these themes.

Time is always a critical factor with distance learning. Most courses of study require assimilation of a textbook in addition to some form of evaluation of achieved learning. When the evaluation method is a self-directed project, more time than the traditional semester should be allowed. While some adults feel more comfortable with standard semester time, others do not or cannot complete a learning activity in that time frame. For the benefit of the student and the academic institution, however, learning activities conducted over more than six months become nonproductive. Maintaining financial records that overlap fiscal years creates distress for business department officers and external auditors, but the effect on the student is more lasting. When extensions beyond six months are given, there is not only a significant drop in motivation but a significant drop in the quality of the final project. Even worse, a high percentage of these students who have been given extensions beyond six months, even if only for a few extra weeks, lose their momentum and drop out of their academic pursuits altogether. For the few of those who reenter again at a later date, their motivation and productivity are lower than their former successes.

Besides including flexibility in the learning design and being sensitive to the effects of time on student motivation, creativity needs to be incorporated in the method in which we provide feedback to students. The telephone is an easily accessible instrument for feedback, and it allows for two-way communication. Finding mutually agreeable times for such conversations, however, may present other problems, including cost. One approach is to supplement telephone feedback or submission of assignments with reusable audio and video tapes. These tapes can be listened to or viewed during more convenient times and as frequently as desired. Also, new technologies, especially the computer, provide variations to standard methods and allow the student to select which methods fit his environment best. In addition, by using various reporting and feedback approaches, a sense of adventure and exploration is introduced and acts as a potential motivator. Even testing, where testing is deemed necessary, can be accomplished through these technologies and frequently in less stressful situations. For example, in a course of study in general psychology, students who have access to personal computers can be sent software to complete examinations at their convenience, spending as much time as they need. Students skilled with computers often provide suggestions for their use that are creative and time-saving, and such interest translates into motivation.

Perhaps the most important consideration, however, is to recognize in retrospect what we have gleaned from our personal learning and teaching experiences. Self-control generates greater interest, depth and longer retention of learning. For those of us involved with distance learning, we need to reflect upon what our real goal is as educators. We want to be sensitive to that goal and promote growth through learning that is self-directed, meaningful and lifelong. By designing learning activities which enter the familiar world of the adult, the adult will have a sense of self-control, will be better motivated, less apprehensive, and will develop a sound foundation for future learning.

TUSCULUM, AN OLD COLLEGE WITH NEW DEGREE ALTERNATIVES

Dr. Earl Hausle, Tusculum College

The oldest college in Tennessee, Tusculum was chartered on September 3, 1794. The institution's charter was the 28th in the United States. Founded in the belief that values are fundamental to education, the college is committed to the liberal arts and encourages the development of the individual, while offering realistic career options to its students. A liberal arts core is required in either the arts or science degree earned from Tusculum.

Looking to the future, the administration and faculty have sought new directions in this decade to ensure the survival of the old college. Both have agreed that new paths would be travelled in the tradition of the liberal arts, and that any new programs would be offered within the borders of the Volunteer State.

Facing a shrinking supply of high school graduates, they sought other options, while continuing efforts to increase the number of traditional students. One of the populations which appeared to be inadequately served was that of adults who had attended college, but who had not earned more than an associate degree.

An axiom of business in this country is, "Find a need and fill it." Clients or customers can be attracted only by meeting their perceived needs. The problem is that of identifying a need which is not presently being met, whether by a business or a college. This requires market research. The college hired a consultant to do research which could confirm or negate the thesis that the unmet need was in adult education.

Identification of the Target Market

Retention data on college students in Tennessee shows that in recent years only slightly more than 36 percent (36.28) of freshmen entering public colleges and universities graduated within 5 years. Slightly less than 43 percent (42.86) of freshmen entering private institutions of higher learning graduated within 5 years during the same period, according to the statistical Abstract of Tennessee Higher Education (1978-1984).

This information indicates that many adults in Tennessee have attended college but have not completed a Baccalaureate Degree. Included in this group are many who have earned associate degrees at the state's community colleges and technical institutes. The question that had to be answered was whether or not there were substantial numbers of these people who had either the desire or the need to earn a BS Degree.

Census data shows that one-third of the state's population range in age from twenty-five to fifty. The median age of this group is thirty-seven. Analysis of the data from the market study indicate that approximately one-fourth of the persons in this age group are interested in continuing their education. Thus, a target market of over 300,000 potential customers has been identified.

A question to be considered is, why, if these adults had the need and/or desire to complete the degree, they had not already done so? Working adults seeking degrees will find varying options depending, in part, on where they live in the United States. Tennessee residents are limited in several ways. Very few colleges and universities in the state offer programs tailored to their needs. Many evening classes are offered but few evening programs leading to a degree exist. Weekend colleges are limited, as well. Most institutions that offer evening classes do so on their own campus and some have extensions at other locations, but no institution was seriously engaged in taking a degree program to students using a decentralized model.

While it is an oversimplification to say that the only other group of potential students is some part of the adult population, it is true that this is the only other population group which can qualify to enter college. The college's experience with continuing education programs made it obvious that whatever was done for adults would not attract the numbers required to guarantee the future of the college if the program were limited to the campus.

With the target market spread across a state which is five hundred miles long, Tusculum College, located only fifty miles from the eastern border of the state, had to make a number of strategic marketing decisions. The first decision was to segment the market by serving those persons who had at least 60 semester hours of college credit and who wanted to attain a Baccalaureate Degree. The second decision was to begin marketing the program in East Tennessee and to eventually offer the program by opening regional centers across the state.

Two offices were opened simultaneously, one on the college campus and the other in Knoxville, approximately 70 miles to the west. These two offices could serve all of East Tennessee, including two Standard Metropolitan Statistical Areas, the Tri-Cities of Tennessee and Virginia and Knoxville.

In 1985 an office was opened in Memphis, approximately 450 miles from the Tusculum campus at Greeneville, Tennessee. This was followed by starting an external master's degree program in the fall of 1985. This is a non-traditional Master of Arts in Education degree for classroom teachers.

Design of the External Degree

Certain assumptions were made about the needs and desires of the segment of the target market which Tusculum chose to serve. These were based upon the experiences of other colleges and universities serving similar markets in other states and upon the results of research on adult learners.

The college designed a non-traditional degree program with features intended to meet the particular needs of those in the selected market segment. The two cornerstones of the program were the evaluation of experiential learning for credit and a 36 semester hour major. The original major was in business administration or management. In January of 1987 the major was changed to a 37 hour major in Applied Organizational Management. There is no residency requirement.

The faculty and administration of the college perceived significant difference between the majority of day students and working adults. These differences included work experience, higher levels of motivation, and the responsibilities which set the adults apart in a majority of cases. If these differences actually existed, they would impact on both curriculum design and the delivery system. Any program offered would have to be limited to some subset of the universe. It was decided to limit entry into the program to those persons with 60 semester hours of transferable credit and at least two years of work experience. Those meeting these qualifications had different demographic characteristics from the day students being served on the campus.

The courses in the major would be delivered in lockstep sequence to avoid scheduling problems. This made it possible for students to earn the degree in approximately 15 months. Each class would start the program as soon as a minimum of thirteen students were admitted and registered at each location. Except for vacations, the college's traditional schedule would not apply to the non-traditional program.

Classes meet at night at a location convenient for the students. Each class session lasts for four hours. The students in each class are divided into study groups, each of which schedules its own time and place to meet for an additional four hours each week. The non-traditional program is divided into three terms. All educational materials, including texts, are delivered to the students at the classroom site where they meet when they register for each term.

All features of the program were designed not only to meet the needs of the people to be served but also to make it as convenient as possible for them to enroll in the program. They do not have to come to the campus, except to graduate. They do not have to stand in line to register, or to buy books. All of these features make the program attractive to those who want to continue working full-time while they earn a degree.

The liberal arts core is required for all who graduate, and academic standards are maintained and carefully monitored through a well-designed quality control system which includes student and instructor feedback as well as administrative supervision.

The Liberal Arts Core

The liberal arts core requires a total of thirty-three semester hours from the following academic areas: six hours in at least two disciplines from the creative arts and humanities; six hours of English composition; six hours from science and mathematics, which must include one course from each area; twelve hours in at least two disciplines from the social sciences; two hours of speech or drama; and one hour of physical education. Anticipating that many of the applicants would have associate degrees, the Tusculum faculty voted to waive the core requirements, except for science and mathematics, for those with these degrees.

Faculty

Each person selected to teach in this program must have a Master's Degree in an appropriate discipline. The second requirement is the ability to successfully teach adults. The latter is the reason for the selection process which all faculty must go through. The third requirement is that of having actual experience in the subject the person plans to teach. The emphasis in the program is on the application of knowledge and theory to the solution of problems; therefore, practitioners and practicing consultants are sought. Faculty members are recruited from the local area where classes are being offered, as much as possible.

Taking the Program to Students

Although the first class started at Tusculum, others were soon offered elsewhere. By the end of the first nine months of the program, classes were being held in six other locations. The nearest class met 30 miles from the campus and the most distant, at Cleveland, Tennessee, was 160 miles away. This dispersion of classes was essential to serving those living beyond the college's normal service area.

Classrooms are, in some ways, as non-traditional as the program itself. Program administrators seek rooms with tables and individual chairs. These settings are more conducive to small group problem solving and discussion than rooms containing student desk chairs. Classes have been conducted, or are currently being held, in corporate training rooms, college seminar rooms, hospital seminar and training rooms, office complex conference rooms, hotel conference and meeting rooms; and, in one case, a bank's boardroom. All classrooms must be equipped with chalkboards and screens and meet various other requirements.

This lock-step scheduling has advantages for both the students and the college. Each student receives a copy of the schedule with the dates, not only for each course, but also for each class meeting. The schedule includes all courses and all class meetings dates for the entire program. This assures students that the entire sequence of courses will be taught. This method of scheduling allows the college to plan the staffing needs for each group of students for their entire sequence of courses. Having each group on its own schedule provides flexibility without impairing the program. A master schedule is prepared on a computer spreadsheet. This allows for the regular updating of printed schedules, which include class locations and the names of instructors for each subject.

Although the general procedures are the same for the master's degree program, these classes usually meet at public schools or community colleges.

Interdisciplinary Aspects of the Baccalaureate Program

Assessment of Experiential Learning

An Assessment Center was established on the campus for the purpose of evaluating student portfolios before classes started. Although prior learning may be documented within the portfolio in various ways, comments in this paper are limited to the evaluation of essays on experiential learning.

Students admitted to the program with less than 92 semester hours of credit have the opportunity to submit a portfolio for evaluation. The assessment of portfolios follows guidelines developed by the Council for the Advancement of Experiential Learning (CAEL).

The four traditional academic divisions of Tusculum College are:

Arts and Humanities
Natural Sciences
Professional Studies
Business, Psychological and Social Sciences

Over 75 percent of all essays submitted by students are evaluated by full-time college faculty from the four academic divisions. The remaining essays are evaluated either by adjunct faculty, including those teaching in the non-traditional program, or by others with the required expertise. The latter group has included faculty from other colleges and universities.

All evaluators are trained by the Assessment Center Director, who assigns the essays for evaluation . Other parts of the portfolio are evaluated by faculty as well. All evaluators are paid for each evaluation. Whether credit is awarded in full, in part or not all is a decision made by the individual evaluator. If a student is awarded no credit or less credit than petitioned for, the student has the right to ask for a second evaluation. The evaluator completes a form with information regarding the decision to award either no credit or partial credit. This form is returned to the student. In some cases the evaluator suggests that the essay be rewritten. In other cases, the evaluator may suggest that a different course description would be more appropriate or that the documentation is inadequate. This information helps the student to understand the reason for the decision. The result is that there are very few requests to have essays evaluated by a different evaluator.

This system provides full control over the portfolios within the Assessment Center, since all evaluating is done there and no portfolio leaves the center until it is ready to be returned to the student. It also allows the faculty substantial control over the granting of credit for experiential learning, since most of the evaluation is done by individual faculty members.

Regular Faculty Teaching in the Non-Traditional Programs

Faculty with appropriate credentials are invited to apply to teach in the program. All applicants, both faculty and non-faculty, are required to go through a selection process which includes a presentation by each candidate and a leaderless group activity. This is a non-competitive process which allows program administrators to observe both presentation and facilitation skills, as well as group participation. Full-time faculty selected to teach in the non-traditional program accept any teaching assignments as an overload and on a strictly volunteer basis.

Non-Traditional Program Administrators and Faculty

Adult and Graduate Programs administrators are voting members of the Tusculum faculty and are eligible to serve on faculty committees. The Dean of Adult and Graduate Programs chairs the Graduate Committee and the Coordinator of the Master of Arts in Education program also is a member of the committee. The Assessment Center Director serves on the Curriculum Committee while the Assistant Program Director for the bachelor's degree program in East Tennessee is a member of the Admissions and Academic Standards Committee. These professionals also serve on ad hoc committees appointed by the President, Dean of the Faculty, or Dean of Adult and Graduate Programs.

Tusculum College administrators and regular faculty are invited to attend faculty meetings of the adjunct faculty who teach in the non-traditional program. These meetings are held on the campus several times a year. They are devoted to increasing the knowledge of the adjunct faculty about the entire non-traditional program and the mission of Tusculum College in both traditional and non-traditional programs. Opportunities are provided for the sharing of teaching experiences and methods by those who teach the same subjects. The focus is on the improvement of method and process in teaching and facilitation. There is no adjunct faculty organization, no committee structure or other formal business to conduct; therefore, the major focus is on improvement.

Lively question and answer sessions are a regular part of plenary sessions just as discussion enlivens the concurrent sessions. Regular faculty and administrators, including the President and the Dean of the Faculty, are invited to participate in these meetings.

Interdisciplinary Research Options

The Business Research Project accounts for nine semester hours of the required curriculum. Students choose their own research problems, with the approval of the instructor. Students are encouraged to choose a "real world" problem from their place of employment for research. A five chapter report and an abstract are required. Space does not permit a full discussion of the project, however, some titles will illustrate the interdisciplinary nature of the project. Titles and number of pages in each report are listed below.

Determining the Effectiveness of the Management Continuity Program at Martin Marietta Energy Systems, Inc., on Areas of Management Concern. 53 pp.

Investigation of the Performance of Manual Versus Automated Metering Systems. 59 pp.

Successfully Marketing Knoxville Community Theatre. 60 pp.

A Study to Design an Employee Performance Appraisal System for Utilization in a Pharmaceutical Manufacturing Firm. 67 pp.

The Economical Impact of the Tennessee Valley Fair on Knox County, Tennessee. 52 pp.

A Comparative Evaluation of the Retirement Component of Employee Benefit Programs in Six Major Non-Union Area Industries. 85 pp.

Quality Assurance

The goals for each course are set forth in each course module. The modules are provided for each student and each instructor. At the end of each course, the students complete an end-of-course survey. Each faculty member submits a different survey form at the end of each course, as well.

Administrators and faculty coordinators make unannounced visits to classes. A faculty evaluation sheet is completed and returned to the Dean's Office following each of these visits. The students complete an end-of-program survey when they have completed all courses. Each September a graduation survey is sent to all students who have graduated during the previous year.

These various feedback instruments are used to make program changes and adjustments. The end-of-course surveys are compiled for each class. The summary document, including the typed comments of the students, is read by the Assistant Program Director, the Dean of Adult and Graduate Programs and the President of the college. A copy is sent to the instructor after the grades have been turned in. In the case of a negative evaluation of the instructor, a conference with the instructor would be held in an attempt to determine whether a problem existed. If there was a problem, the faculty coordinator or Assistant Program Director would work with the faculty member to solve the problem.

Negative course evaluations may result from various causes, including the classroom environment, texts, or course modules, for example. Such negative evaluations from various classes in different locations, which have been taught by various individuals have resulted in changes in course modules, texts, classrooms and in the curriculum. In the latter case a course in business communication was added because students wanted additional instruction in writing and speaking.

The quality control system is considered, by this writer and others, to be an essential element of the program which results in needed modifications and changes.

There are three major interdisciplinary areas linking the faculty and administrators of the traditional on-campus programs with the non-traditional off-campus programs. The major involvement of the regular faculty is in the evaluation of experiential learning. The second area is that of regular faculty teaching in the non-traditional program, and last is the membership of the program administrators on the regular faculty and their service on faculty and college committees. The research project divides interdisciplinary options for students.

Results of the First Two Years

The first class started on the Tusculum campus on September 25, 1984. At the end of August 1985, one year later, twenty classes had been started in seven East Tennessee communities. The number of students enrolled in the non-traditional Bachelor of Science program reached 324, which exceeded the enrollment in the traditional campus program by eleven. In one year the new program had made it possible to serve more than twice the number of students enrolled in the traditional campus program.

In the second year of operation, from September 1985 through the end of August 1986, another 16 classes were started in the same geographic area, and 427 students enrolled. These figures do not include students enrolled in the Bachelor of Science program with a major in management which began in Memphis in 1985, or those enrolled in the Master of Arts in Education which also started in 1985.

Of the 195 seniors who graduated from Tusculum College on May 4, 1986, 140 were from 10 non-traditional classes. Another 140 graduated on December 14, 1986, at the college's first mid-year graduation.

In May of 1986 Tusculum granted the first earned graduate degrees in its 193 year history to the first class to complete the requirements for the Master of Arts in Education degree. These 16 graduates joined 160 undergraduates who earned diplomas through the external degree programs. The number of graduate degrees will rise sharply at the December 1987 commencement when 79 graduate students are expected to complete the requirements for graduation.

Student Profile

The average age of the students is thirty-five. Thirty-nine percent are female and sixty-one percent are male. Seventy-one percent are married. Only nine percent are age twenty-five or less, while only one percent are age fifty-six or older.

A wide variety of occupations are represented among the students, but five broad occupational groups account for nearly ninety percent of those represented. Administration accounts for thirty percent, clerical occupations for seventeen percent, licensed professionals for ten percent, and sales and marketing for seven percent.

The six major reasons most frequently given by students for enrolling in the program are shown below in descending order of frequency.

Opportunity to Coordinate Education with Occupation
Program Designed to Maximize Efficient Use of Time
Convenient Time of Class Meeting
Opportunity to Receive Credit for Prior Life/Work Experience
Convenient Location of Class Meeting
Opportunity to Work with Faculty Who Have Real World Experience

The most frequently mentioned personal objectives of the students in the program are listed below in descending order of frequency.

Gaining Personal Satisfaction
Increasing Opportunities for Personal Growth
Increasing Self-Confidence Skills/Knowledge
Accepting Personal Responsibility for Personal/Professional Development

Data collected on the first 20 classes show that of the 350 registered, 219 (62%) held the associate degree. This is a clear indication that the program is meeting the needs of Tennessee students who have graduated from two-year colleges as well as the needs of those who have two or more years of study at a four year institution.

Only 3 percent of the students earn less than $10,000 per year; 19 percent earn between $10,000 and $19,000; 23 percent earn from $20,000 to $29,999; 24 percent earn from $30,000 to $39,999; 17 percent earn $40,000 to $49,999; and 13 percent earn $50,000 or more.

Thirty-two percent have been in their present careers for eleven or more years and thirty-one percent have spent six or ten years in the same careers. Thirty percent have been in their present careers from two to five years and only seven percent have been in their present vocations for two years or less.

Retention

In sharp contrast to the figures on retention in traditional programs given earlier in this paper, Tusculum's non-traditional program has an eighty-four percent retention rate. This figure is based on data collected on the first six hundred students enrolled. The leading reasons for withdrawal are shown below.

Program requires more time than the student can give.	26%
Subject matter is more demanding than expected.	20%
Financial obligations.	10%
Family obligations.	12%
Program is not suited to student needs.	7%
Personal problems.	5%

The high percentage of the first two reasons may indicate that some who enrolled thought that the program was not as rigorous as a traditional program. These students soon discovered that this is a very demanding program in which they carry twelve semester hours throughout the program.

Student Comments

Comments from the end-of-program surveys are generally positive, but not entirely. The following comments support Tusculum's use of a non-traditional program to meet the needs of working adults more effectively than anything else in this paper.

From the first class:

"I do not feel that people who attend ordinary classrooms get as much as we have from the TALL* Program, I enjoyed it even though it was hard work."

From the second class:

"I feel that the TALL* Program provided me with an opportunity not available through conventional degree programs. Someone has finally realized that those of us with work experience should not be forced into the classroom with inexperienced youth - and, often instructors. Thank you for treating us with respect."

From the sixteenth class:

"The TALL* Program was a good program. I would not have a degree if it were not for the TALL* Program. Thank you."

*An acronym for Tusculum Adult Leader Learning, which is no longer used.

Summary

Through market research and careful planning, Tusculum College was able to offer working adults in Tennessee an opportunity to earn a Bachelor of Science degree. This alternative degree option, first offered in September of 1984 has enrolled 850 students through June of 1987. During this period, 420 graduated.

In 1985 the program was expanded through opening an office in Memphis and offering a master's degree for classroom teachers. By June 30, 1987, 130 teachers were enrolled and 16 had graduated.

Through the use of feedback from students and faculty, program administrators and faculty have been able to make changes in and adjustments to both degree programs to improve the quality and better meet the needs of the consumers.

References

Cross, K. Patricia (1983). Adults As Learners. San Francisco: Jossey-Bass Publishers.

Kotler, Phillip and Bloom, Paul N. (1984). Marketing Professional Services. Englewood Cliffs: Prentice-Hall, Inc.

84

EXPANDING SERVICES TO RURAL ADULT STUDENTS: A COOPERATIVE INSTITUTIONAL EFFORT IN WESTERN MINNESOTA

Karla Klinger, Program Director
University of Minnesota, Morris Center

> Adults who live in rural communities are often barred from educational opportunities because of isolation and distance.

Western Minnesota is characterized by small towns and lakes scattered amidst flat farmlands. The population is dispersed over 27 counties, an area larger than Vermont and New Hampshire combined. The economy of the towns depends upon the land and the seasonal success of the farmers. The communities, half of which have populations of 500 persons or less, are closely knit and serve as the economic and social centers of the area. Isolation and distance are daily realities.

Many adults who wish to pursue college coursework face obstacles preventing or discouraging them from attaining their goals. In a national study, Cross [1981] identified three types of educational barriers that keep prospective students from pursuing educational goals: situational (lack of money, time, transportation, child care or family support); institutional (scheduling, location, curricula and information); and dispositional (motivation and confidence.)[1]

A local study conducted by Marienau [1975] compared the educational barriers faced by a sample of two groups of rural Minnesota adults: students enrolled in a baccalaureate degree program and adults interested in continuing their educations who were not pursuing this interest. The study showed that the barrier that most deterred rural Minnesota adults was access to educational facilities (distance from a degree-granting institution as well as availability of curriculum). The study also showed that rural adults with clearly expressed educational goals have limited knowledge of existing area educational institutions, that many are unsure of where to go to obtain information, and that the investigations they do conduct into educational opportunities are limited.[2] Project ENLIST, a cooperative institutional effort to address the needs of adult learners, was designed with these findings in mind.

PROJECT GOALS

Project ENLIST (Educational Network Linking Institutions, Students and Technology) was a two-year project designed to address the dual problems of access to and delivery of educational services to the rural Minnesota adult learner through the utilization of telecommunications technology. Supported in part by the Fund for the Improvement of Postsecondary Education and coordinated by Continuing Education and Extension at the University of Minnesota-Morris, the project was a combined effort of 15 postsecondary education institutions, 100 community education programs, and 75 libraries to improve advising and assessment services to rural adults through inter-institutional cooperation and technology.

The project objectives were:

1. to develop linkages among postsecondary institutions and local education providers (libraries and community education programs);

2. to establish an on-going cooperative advising and assessment network for rural adult learners through development of a database and identification of assessment tools; and

3. to utilize this network to deliver advising and assessment services as well as curriculum programs via technology.

ORGANIZATION

Developing linkages

Western Minnesota postsecondary institutions have a history of cooperation expressed through informal linkages between two Consortia, the West Minn Consortium and the Southwest West Central Consortium. These Consortia comprised 15 institutions: 8 area vocational technical schools, 3 community colleges, and 4 four-year colleges.[3] All but one of the 15 participant institutions are public. The Project called for the Consortia to coordinate their outreach services for rural adult learners and to link them with community education, libraries and telecommunications providers. The organization of the state into consolidated or federated library systems is complex and overlapping, but networks exist if we could learn to use them. Community education programs, on the other hand, had a state affiliation, but the 104 community education programs in the region functioned within their school districts and had no regional ties. The ENLIST project then, through its vast network, had the potential to reinforce existing relationships among the postsecondary institutions and to forge new links with other adult education providers.

In order to formalize the links among providers, an advisory council was formed whose membership comprised representatives from the two consortia, the library system, and community education. In addition, we included representation from two other important groups--telecommunications providers and the statewide agricultural extension network. The advisory council helped shape the direction of the project, provided input about the needs of participating groups, and brought back news of the project to their home units. The project also sponsored conferences and workshops to provide personnel from the cooperating units with opportunities to discuss common concerns and to strengthen the network.

Establishing an on-going cooperative advising network for rural adult learners through development of a shared database

ENLIST was intended to provide a central clearing house through which an individual's learning needs could be elicited and matched with an appropriate institution. Since it is not unusual for a postsecondary institution in western Minnesota to be the only one of its kind within a 100 mile radius, advisers who limited their knowledge to the academic offerings of a single institution would not be able to provide the range of information an adult student needed in order to make informed vocational/educational choices. The database of institutional offerings was intended to vastly improve the advisers' knowledge of regional resources and to provide a common reference point.

Staff enlisted the assistance of the advisory committee to create a data retrieval system of existing programs and resources that could be useful to all advising offices. These databases were of two kinds, a database of institutional offerings and services and a database of available technology.

ENLIST's database of institutional offerings and services was compiled from college bulletins requested from each institution and from analyses of a comprehensive questionnaire sent to the advising personnel of each institution. Courses were listed alphabetically and by institution. Each offering was assigned a value code using the Holland Occupations Finder.

The services portion of the database was developed through site visits; it inventoried a range of possible career and academic services and methods of delivery available to adults. The most useful part of the listings was the identification of the name and phone number of the institutional adviser to contact for additional information.

The questionnaire revealed that the adult population (those students over 21, 22 or 25 years of age, depending on the type of institution) varied from 1% at a private 4-year college to 30% at community colleges and vocational, technical schools. The survey results suggested these observations:

1. Most participating institutions had personnel willing to work with adults, but there was little consistency among institutions and little publicity within institutions to inform the adult which office or person to contact.

2. In most participating institutions, including those with a rich array of evening programs, degree or diploma goals could be attained only through the day program.

3. Most campuses offered career, academic and personal advising and testing to all students. However, those services most appropriate for adult students--such as provision of child care, granting credit for prior learning, offering external delivery of day offerings--were the services most in need of strengthening.

4. Institutional efforts were being made to accommodate the time frames available to adults through day, evening, and non-credit offerings. A number of institutions offered weekend courses as well. However, the delivery methods that involved self-direction, a quality important to the adult learner, were least likely to be offered.

The questionnaire designed to inventory the state of technology in western Minnesota revealed that levels of technology differed significantly among institutions as did the levels of technological sophistication among personnel. For example, while almost all institutions used video tapes, slides and projectors, only four institutions had access to interactive television. Only one institution (four-year) had satellite reception and could send by satellite. None could receive or send by microwave link. There was little compatibility among providers. For example, each of the 15 institutions used one of three different communications systems. Computer users might have access to Wang, CDC Cyber 172, IBM 34, The Vax 11/750, Cyber 74, Cray 1B, or Univac 1100/80. Attaining compatible equipment would require a strong level of commitment as well as dollars. Use of existing technology would require new means of interchange among machines. In addition, we found resistance to the use of technology which needed to be addressed.

DELIVERY

Given the varying stages of institutional awareness of the needs of the adult learner and the state of the art in and resistance to technology in western Minnesota, the coordinators shifted the project focus away from technological delivery of courseware to address the problems that had arisen. We identified issues that would need to be discussed among the institutional providers if technological cooperation were to become a reality, such as the need for compatible equipment, unified cost, and accreditation across providers, and we began initial discussions. In addition, we planned conferences for staff of participating providers to sensitize them to the needs of adult learners, to promote positive attitudes toward hands-on experience with the media, and to train providers in the use of the newly identified assessment tools.

The process for coordinated advising was put into effect. The regular publicity channels such as University Relations press releases and radio and television interviews or public service announcements were utilized to inform the public about the advising network. In addition to these regular channels, library and community education offices and newsletters were used for the distribution of flyers and bookmarkers featuring the toll free advising number.

With the educational services database in place, the second major project focus was the implementation of an advising and assessment process which would remain in place following the project's end. Key components were 1) an information specialist with access to the database and assessment tools, 2) a toll-free telephone line and 3) a referral system. The toll-free line provided anonymity to encourage the prospective student to gather information. Cost-free access was considered essential because in a rural area almost any phone call is a long distance call. The information specialist personalized assistance and information about courses, programs, and services available through the network of cooperating institutions. She also performed the role of broker, establishing contact with a specific resource person at the institution to which the student was referred. A follow-up procedure was initiated through which students who identified themselves were encouraged to call back if their requests went unanswered.

Either the ENLIST information specialist or the adviser representing the participating institution was able to make use of several assessment tools. The ENLIST staff sought a flexible assessment instrument that would provide a values profile of the student to help both the student and the adviser gain insights into values that affect the learner's decision making.

Many of the 15 institutions participating in the project used a variety of assessment tools such as the Strong Campbell Interest Inventory. In addition, three instruments were recommended to rural practitioners:

The World of Work Inventory developed by Dr. Robert Ripley of Arizona State University provides a nonthreatening way for adults to learn to think creatively about the relationship between their values and their choices. When scored by a computer, this paper and pencil inventory provides a summary of vocational training potentials and career interest activities in 17 basic occupational areas. A unique section of the analysis measures the job temperament most liked and disliked on the job. These job temperaments (versatility, adaptability to repetitive work, dominance, objectivity, subjectivity, rigor, etc.) provide values parameters that make it possible for the learner as well as the adviser to think creatively about educational and vocational decisions. This is particularly important in the rural environment where job opportunities are limited and where most advisees do not have the option to move elsewhere. Advisers were trained in the interpretation of the World of Work Inventory profile, and most of the ENLIST institutions have since chosen to adopt this assessment tool.

We also reviewed two computer-assisted assessment programs, SIGI (System of Interactive Guidance and Information designed by the the Educational Testing Service) and DISCOVER (a product of the DISCOVER foundation). Both programs were developed to help users make informed career decisions. In both programs, users engage interactively in a dialogue with the computer, tailoring the computer program through their responses. Both explore values, ask the reader to make choices within those values, and suggest postsecondary institutions for the viewer's consideration. Both systems are currently in use throughout the service area.

EVALUATION

The evaluation of project ENLIST[4] consisted of three parts: 1) interviews between the project staff and the evaluator covering their assessment of the achievements of the project objectives and their insights into operating it; 2) analysis by the evaluator of an evaluation survey conducted by the staff with the participating institutions; and 3) confidential telephone and/or personal interview between the evaluator and personnel of the participating institutions probing the effectiveness of the project. The evaluator, Douglas Easterling, Director of Planning for the Minnesota Community Colleges, has extensive experience with postsecondary programs for adult learners and with cooperative programs and delivery in rural areas.

Easterling found project ENLIST to provide a good start at implementing a counseling and referral network for adult learners. He characterized the ENLIST model as "a practical, first-hand model which can be of benefit to any organization contemplating an information and referral enterprise in a human services setting." In particular, the establishment of the toll-free ENLIST telephone line had made an important start toward providing rural adult learners with access to educational and vocational information about advising and assessment. Easterling underscored the importance of the nonthreatening, anonymous personal interaction between adviser and advisee and considered the telephone "a perfect means" for that initial contact.

Information provided by the database and the trust level reached through the involvement of the institutional advising personnel had greatly enhanced the effectiveness of the adviser's ability to transmit more accurate information and to better assist callers when inquiries were initiated. ENLIST's efforts to seek a flexible assessment instrument for adult learners and to train advisers in their use had resulted in better informed staff as well as in the expansion of assessment services to adult learners throughout the service area.

Easterling found that the ENLIST network had reinforced existing relationships among the postsecondary institutions and had demonstrated the usefulness of forging new links among other adult education providers. A number of new cooperative arrangements had developed between various combinations of project participants. Participants contacted by the evaluator noted that linkages such as those sought through the project need a catalyst like ENLIST with staff dedicated to "continual care and feeding." They believed that an effort of such organizational complexity would need at least five years rather than two to make a significant impact.

Noting that support had grown for the project as its goals became clearer, Easterling urged that project ENLIST should be re-established as a neutral, telephone-based information and referral service and that its association with a provider of postsecondary education should be retained. If at all possible, the telephone should continue to be toll-free or should involve minimal cost. Adequate staffing would be essential to undertake extensive publicity efforts, to improve the existing tracking system, and to annually update the database. In light of the profound social change affecting the region and the initial successes of the project, Easterling urged that ENLIST continue to serve as a catalyst to draw personnel together to continue to improve services to Minnesota rural adults.

SUMMARY

Project ENLIST was a cooperative effort of educational providers in western Minnesota to reduce institutional barriers faced by adult students who wished to explore their educational and vocational opportunities. The project strengthened the links among regional educational providers, implemented an advising and referral system for rural adults, and enhanced the resources available to educational advisers through the compilation of a common database and shared assessment tools.

Rural and urban adults may continue to face barriers of access to educational and vocational opportunities. Project ENLIST demonstrates one model for addressing these barriers through inter-institutional cooperation.

****

1. Cross, K.P. Adults as Learners: Increasing Participation and Facilitating Learning. San Francisco: Jossey-Bass, 1981.

2. Marienau, C. "Study of Barriers to Participation in Postsecondary Education as Perceived by Adults in West Central Minnesota." University of Minnesota-Morris, 1975.

3. The membership of the West Minn Consortium includes: Alexandria, Detroit Lakes, and Moorhead Area Vocational Technical Institutions; Fergus Falls Community College, Concordia College, Moorhead State University, and the University of Minnesota-Morris.

   The membership of the Southwest West Central Consortium included Canby, Granite Falls, Jackson, Pipestone and Willmar Area Vocational Technical Institutions; Willmar and Worthington Community Colleges; and Southwest State University and the University of Minnesota-Morris. Since this Consortium no longer receives state support, the six institutions in the far southwestern part of the state have regrouped to produce a more tightly knit cooperative relationship.

4. Easterling, Douglas. "Summative Evaluation: Project ENLIST." October 1986. The analysis in this section is based on this evaluation.

SUPPORT SERVICES

PROBLEMS AND ISSUES IN PROVIDING LIBRARY SUPPORT TO OFF-CAMPUS ACADEMIC PROGRAMS: A PILOT STUDY

Marie Kascus and William Aguilar
Central Connecticut State University

Introduction

For traditional students enrolled in on-campus programs the library is provided as an essential support service. By way of contrast, off-campus instructional programs have devoted very little attention to library needs, placing non-traditional students at a disadvantage in terms of access to library service. As a rule, students enrolled in off-campus programs are expected to fend for themselves in accessing libraries and locating resources to complete library related assignments. Since the provision of library support is fundamental to quality instruction, it would seem that institutions have a responsibility to provide equivalent library service for off-campus students.

The present study is organized into two parts. Part I presents an overview of some of the problems and issues in providing library support to off-campus programs. The problems and issues are discussed from the vantage point of five key players in the educational process: administrators, students, faculty, libraries, and accreditation and licensing bodies. Part II reports on a pilot study which examines one Connecticut institution's off-campus program. It includes a discussion of the study site, study design, survey analysis, and conclusions and recommendations regarding off-campus library support. Appended are copies of the student and faculty questionnaires and copies of the raw data for both groups.

Part I

A brief overview of the problems and issues encountered in providing off-campus library support is presented as background information for the pilot study conducted at one Connecticut college. The problems and issues are organized and discussed from the perspective of each of the key players in the educational process: administrators, students, faculty, libraries, and accreditation and licensing bodies.

Administrators

The absence of library support can most often be traced to the lack of responsible action on the part of the institution offering the off-campus program. While some academic institutions are making a reasonable effort to address the problem, many are not seriously concerned with the library's role in supporting off-campus instruction. This capitulation of responsibility clearly indicates that the refrain alluding to the

94

library as the "heart of the institution" has been particularly hollow as it applies to off-campus programs.

From an administrative perspective the problem is largely one of economics. Many institutions enter the off-campus marketplace to counteract declining full-time enrollment and to remain financially solvent. Libraries by nature are costly to maintain, so that establishing a satellite library at each off-campus site could easily exceed an institution's fiscal capabilities. Institutions have, to a large extent, ignored the off-campus problem rather than confront it. The successful delivery of off-campus library service, however, requires that administrators recognize the special needs of off-campus students and demonstrate this by providing adequate funding to support off-campus instructional programs. It is important to remember that off-campus students pay the same amount of tuition and are entitled to the same level of support as their on-campus counterparts.

Students

Students enrolled in off-campus programs are academically isolated and have personal constraints which may encumber some of them in pursuit of an education. These students are typically part-timers and have full-time jobs, family obligations or time limitations which complicate their educational endeavors. Their situation is compounded by the fact that they are taking classes at facilities geographically removed from the main campus, they are often unfamiliar with the academic structure and process, and, from a library perspective, they lack rudimentary bibliographic skills. Many of these students are adults who stopped-out along the way and as such bring different levels of experience to bear on the educational process. All of these conditions make it even more critical that specialized library assistance, equivalent to that provided for traditional students, be available for off-campus students. Given the seriousness of purpose and commitment which these students bring to academe, the likelihood is good that they will very quickly become self-directed learners with a good support system.

Faculty

Another challenge which off-campus education poses is that of working with part-time faculty. A recurring issue in the literature pertinent to off-campus instruction is the perceived lack of commitment of part-time faculty. As it relates to libraries, there is some concern that part-time faculty do not take a direct interest in collection development for the off-campus program and may be reluctant to make classroom assignments that require students to use libraries. From the library's view, it is important to know if faculty refrain from making library-related assignments because they see off-campus students as being at a disadvantage in accessing libraries, or because they are unaware of the services available from the home library. In order for students to have a comparable academic experience, the standards for both off-campus and on-campus instruction have to be equivalent. The level of faculty expectation and the demand for academic rigor should be applied uniformly to all students regardless of where the classes are taught.

Libraries

A basic and fundamental problem for libraries involved in supporting off-campus programs is providing access to collections and services at a distance. Although the home library may be able to provide some services, it cannot be expected to meet all off-campus needs. There is some concern that library support for the off-campus program may jeopardize the on-campus program if both are in competition for the same funds. Home library constraints such as geographic distance from the instructional site, limited hours of service, limited telecommunication systems, and slow turnaround time for the delivery of materials require innovative means of satisfying the off-campus demand and a separate funding source for that purpose. Additional staff will be needed at the home library to make creativity and innovation in the delivery of off-campus library support possible.

One approach to providing library service at a distance is to establish a contract for that purpose with non-affiliated libraries located in geographic proximity to the off-campus site. Academic institutions have historically attempted to establish cooperative agreements with area libraries to provide access to collections and facilities. Public libraries have traditionally assumed a major role in adult education, so that the precedent for using these libraries has already been established. Public library collections, however, are frequently inadequate to support the needs of academic programs. In addition, public libraries may not view the delivery of library service to students enrolled in academic programs as an important mission or charge.

Contracts with academic libraries would be a more appropriate alternative to using public libraries, but it is unlikely that academic institutions will participate in cooperative arrangements that make facilities and resources available to non-matriculated students without some type of incentive. A possible stimulus for cooperation would be financial reimbursement. Even with reimbursement, however, many administrators would be skeptical about entering formal contractual arrangements that could potentially jeopardize their own academic programs by negatively impacting the availability of materials and services for their own students. Although rarely articulated, the reality is that academic institutions which offer the same product and are in competition for the same market are not likely to want to enter into library agreements that are seemingly one-sided.

Other problems in providing library support at a distance emanate from the library's lack of visibility within the academic structure. This is best exemplified by the absence of library representation in planning for off-campus programs. Librarians should be an integral part of the planning process, and programs should not be allowed to become operational without provision of adequate library support. Collaboration between the Continuing Education Office (or comparable academic office) and the library are essential to the successful implementation of an instructional program at a distance. Libraries need to establish a viable presence for off-campus programs and to inform their community of users of the services available. This can best be accomplished through ongoing library involvement in the off-campus planning process.

Students enrolled in off-campus programs are at an academic disadvantage to the extent that they do not have available the full range of library materials needed to browse, to conduct research, and to make choices among the available resources. Paradoxically, libraries can create an additional problem through their zealous efforts to support distance education by spoonfeeding students. Spoonfeeding results when librarians make intellectual decisions and choices for students. This dilutes the academic experience for off-campus students and undermines the primary role of the library which is to facilitate independent learning.

Accreditation and Licensing Agencies

With the proliferation of off-campus programs, agencies such as the Council on Postsecondary Accreditation (COPA) have raised concern about licensing academic programs which do not include all of the necessary components, such as library support, for a quality instructional program. The regional accreditation bodies have been asked to take the lead in this area and have begun to strengthen both the standards and the review process. Some educators may view the involvement of accreditation agencies as bureaucratic meddling, yet enhanced regulations may bring about the measure of quality assurance needed to bring off-campus programs into the higher education mainstream.

The issues raised regarding quality control in off-campus programs are not limited to regional accreditation bodies but are also of concern to state licensure agencies and the courts. The State of Connecticut, for example, revised its regulations for licensure in 1986 to include a provision specifically addressing the issue of library support for off-campus programs. The U.S. Supreme Court in Nova versus Educational Institution Licensure Commission concluded that the lack of a full-time faculty and a library are sufficient justification for denying licensure.

In short, each of the five players has shared responsibility in contributing to the successful outcome of the off-campus educational program.

Part II

The following section provides an overview of the pilot study conducted at one Connecticut institution of higher education. It consists of a description of the study site, a discussion of the survey design, an analysis of the survey results and some conclusions and recommendations regarding off-campus library support.

Study Site

The Connecticut institution serving as the study site is a small, independent, four-year, co-educational college with an enrollment of approximately 1600 full-time and part-time students. Students can pursue associate or bachelor's degrees in either a traditional or accelerated manner.

The accelerated program is oriented to the mature adult who works full-time and goes to school part-time. One of the institution's stated reasons for offering classes at off-campus locations is for the convenience of individuals and organizations. Students can earn an associate or baccalaureate degree without taking any courses on the main campus. The calendar year is divided into 5 nine week modules. Classes 2-1/2 hours long are offered on a Monday/Wednesday or Tuesday/Thursday cycle. By taking two courses every nine weeks, students can accumulate thirty hours of academic credit in one calendar year. Continuing education is viewed as essential to professional development and upward mobility, so that the cost is often underwritten by employers.

Off-campus instruction is offered at ten different sites throughout the state. Half of the sites are open to the public and the other half are only accessible to a restricted population such as the employees of a given corporation.

In attempting to meet the library needs of its off-campus students, the institution provides some services from the home library but relies heavily on agreements with public libraries for that purpose. The language of existing agreements has historically tended to be very informal and not reflective of any serious commitment or stated expectations. In its program review of this institution, the Connecticut Department of Higher Education has not looked favorably on its dependence on and arrangements with public libraries. The institution is attempting to establish contractual agreements with academic institutions whose collections would be more appropriate to support its curriculum, but to date it has been unsuccessful in its efforts to establish such formal agreements.

Design of the Study

Seven of the host institution's ten off-campus instructional sites were in session at the time this study was conducted and together they form the population surveyed. The survey instrument consisted of two questionnaires designed by the researchers to measure the availability and adequacy of off-campus library support as perceived by students and faculty. The questionnaires were reviewed and revised by the host institution and in the process several of the questions posed by the researchers were eliminated. The student and faculty questionnaires were similar in design and include demographic questions and questions on library need and library use. Each questionnaire was accompanied by a cover letter informing students and faculty of the purpose for conducting the study and providing instructions for completion. The questionnaires were administered at each site by the host institution. Students and faculty had the option of responding or not responding to the questions. Since not all questions were answered by each respondent, inconsistencies resulted in the tabulations for the individual questions.

The questionnaires were then returned to the researchers for analysis. A total of 162 useable questionnaires were received from students and 23 from faculty. This represents almost a 100 percent return rate for the targeted population. Only one student questionnaire could not be used. The findings of this pilot study are reported in percentages with the absolute number of respondents included in parenthesis.

Student Survey

The one hundred and sixty-two useable student questionnaires were tabulated and analyzed. Appendix I provides a copy of the student questionnaire and Appendix III gives the actual raw data for each individual site and question. The demographic data regarding class status, employment status, and GPA help describe the student population. Of those responding, 60% (96) indicate status as upperclassmen. Of the respondents, 77% (124) have a GPA of 3.1 or better on a 4.0 scale and 34% (55) have a GPA of 3.6 or better. It would seem that either the quality of these students is above the norm or that grade inflation may be taking place. Of the respondents, 94% (153) are employed full-time and only 1% (1) are not employed at all.

Questions related to library use indicate that 65% (106) of the students would use the library even if not required and 33% (53) would not. Of those using libraries other than the home library, 68% (110) use them less than 3 hours per week. Questions on specific resources indicate that the most frequently used resources are periodicals at 73% (118), the card catalog at 69% (111), and subject indexes at 51% (83). Of the specific services used, the most frequently cited is reference at 75% (122), borrowing books at 70% (113), and photocopying at 46% (75). Survey responses seem to indicate that students are using traditional library resources and services.

When asked which areas of the library are most satisfactory, only two areas, convenient hours 59% (96) and reference service 53% (86), are cited as generating a satisfaction level greater than fifty percent. The services generating the lowest level of satisfaction are on-line searching at 15% (25) and interlibrary loan at 19% (31). Given that the overall level of satisfaction is low, it is surprising that only 34% (55) are able to identify weaknesses with area libraries while 46% (74) found no weaknesses in them at all. When asked to identify specific areas of library dissatisfaction, the concern students cite most often is inconvenient hours at 15% (25). Ironically, the area of greatest dissatisfaction (hours of accessibility) is also the area generating the highest level of satisfaction. This would seem to suggest that library hours are especially important to off-campus students and that, while the hours of library access may be generous, they do not meet the needs of all off-campus students.

Student reponses to questions related to use of the home library indicate that 92% (149) do not use the home library and 70% (113) are not aware of the services available from the home library. Coupled with the response to other questions, this would seem to indicate a need for the home library to do a better job in marketing and publicizing its services. Of the students responding to the question as to which home library services they use, book borrowing at 8% (13) is cited most frequently.

In response to questions related to use of other libraries, the analysis indicates that 46% (75) always rely on other libraries and 9% (14) never rely on libraries other than the home library. The reasons given for using libraries other than the home library are geographic location at 84% (136) and lack of awareness of the services available from the home library at 24% (39).

Further examination of the data reveals that respondents made 154 separate uses of libraries other than the home library. More specifically, this population made use of 56 public libraries, 12 four-year academic libraries, 4 two-year academic libraries, and 6 special libraries for a total of 78 other libraries used. Ten public libraries account for 50% of total use, and four academic libraries for 12%.

In response to questions relating to where they live and work, students identified 68 residential locations and 43 employment locations. The geographic dispersion of residences and places of employment would seem to suggest that the drawing power of the instructional site extends well beyond its immediate geographic location.

Twelve percent (19) of the students responding to an open-ended question soliciting general comments indicate that the home library is too far away to use (5); there is no time for research (2); there is no need to use the library (2); the library closest to home is used (2); there is a lack of awareness of the home library (3). Specific problem areas identified include the length of time needed to make use of interlibrary loan (1); the unavailability of online searching (1) and inadequate library hours (1). Suggestions for improvement include the need for brochures describing services available from the home library (1) and the need for reciprocal borrowing with other institutions (1).

Faculty Survey

The twenty-three faculty questionnaires were tabulated and analyzed. Appendix II provides a copy of the faculty questionnaire and Appendix IV gives the raw data for each individual site and question. The demographic data for faculty respondents indicate that 22% (5) have doctorates and 78% (18) have master's degrees. Seventeen percent (4) have been teaching less than 1 year, 30% (7) have 2-3 years of experience and 26% (6) have 10 or more years of teaching experience. Fifty-seven percent (13) have been teaching for the host institution for less than 1 year. Eighty-seven percent (20) of the faculty respondents indicate that teaching is not their full-time profession.

Fifty-two percent (12) of the faculty do not require students to use the library. Of the 43% (10) that do require library use, the greatest emphasis is on research papers at 35% (8) followed by class presentations at 30% (7) and reading journals outside the assigned class texts at 26% (6).

The home library service most frequently used or recommended by faculty is borrowing books at 26% (6). Very little use is made of interlibrary loan at 4% (1), telephone reference 4% (1), on-line searching 9% (2) and library instruction 9% (2).

When asked what services are essential to students for the successful completion of courses, faculty respondents indicate that book borrowing is the highest priority at 44% (10) followed by the availability of brochures and other information sources at 30% (7). Sixty-five percent (15) of faculty respondents indicate that they use libraries other than the institution's home library.

Forty-eight percent (11) of faculty responded to an open-ended question as to additional library resources that they would like to have available. Nine percent (2) of the respondents indicate that nothing additional is needed. Nine percent (2) indicate the need for more audiovisual material. Nine percent (2) indicate a need for specific resources and name such titles as Value Line Survey, Wall Street Journal Index, etc. Four percent (1) indicate a need for computer searches, interlibrary loan and a list of periodicals available.

Fifty-six percent (13) of faculty responded to an open-ended question regarding which libraries are most appropriate for their needs. Four percent (1) indicate that no libraries are needed. Thirty percent (7) responded with four-year academic libraries, 13% (3) of the responses are for two-year academic libraries, 25% (6) of the responses are for community libraries and 17% (4) of the responses are for the home library.

Conclusions and Recommendations

The findings of this pilot study were to a large extent predictable and may well be reflective of off-campus library support in general.

Analysis of the student survey indicates that the majority of the students are upperclassmen, employed full-time, and have an above-average GPA. Students make minimal use of libraries, and when they do use libraries, they use primarily traditional library services and resources. Student levels of library satisfaction and dissatisfaction are both low suggesting that students are unsure of what they should expect from libraries. The majority of the students do not use the home library citing distance as the single most important obstacle to its use. Most students seem unaware of the services available to them through the home library.

Analysis of the faculty survey shows that the majority of the faculty have a master's degree, have fewer years of teaching experience than the norm, have been teaching at the host institution for a relatively short time and are not full-time instructors by profession. The majority of the faculty do not require students to use the library at all and when they do, they recommend traditional library services and resources. Faculty use of libraries is oriented to area academic and public libraries and not the home library.

The large number of new faculty accentuates the importance of orientation and outreach programs to inform faculty of the services and resources available through the home library. The limited use or recommendation of library service by the faculty contributes to the underutilization of the library as a research tool and suggests inadequate library support and a lack of awareness of the home library. The fact that so many of the faculty are not academics by tradition makes it even more critical for administrators to stress the importance of libraries to faculty and for the library to establish a viable presence for the off-campus program.

In an effort to improve off-campus instructional programs, the accreditation and licensing agencies have recently strengthened their regulations,giving added emphasis to library support. This may be the most effective way of focusing attention on the problem and bringing about change. Given the mandate from these review agencies, administrators have to find effective ways of convincing faculty of the importance of the library; faculty have to make research assignments which require use of the library in order to foster the intellectual growth of students; librarians have to teach the bibliographic skills which will help students to effectively use the library; and students have to recognize the degree program as the beginning of a lifelong learning process. The interdependence of the players makes cooperative effort critical to the successful outcome of the off-campus program. The continued existence of the host institution's off-campus program will require more effective teamwork to insure the quality and integrity of the academic experience.

This pilot study should be viewed as exploratory in nature. It is hoped that it can serve as a starting point for further off-campus study. The questionnaires developed for this survey allowed the researchers to collect some useful data, but they do not purport to be scientific instruments. Several key questions were not addressed and warrant further consideration. Specifically, there is a need to know if the absence of a library at the instructional site prevents the faculty from making library-related assignments; if contracts with area libraries combined with services from the home library can satisfy the needs of off-campus students; or if a branch library is needed to provide the proper level of support.

In conclusion, what is recommended for effective library support for the off-campus instructional program is a combination of all of the following: designated services provided by the home library, a librarian dedicated to serving the needs of the off-campus population, contractual arrangements with non-affiliated academic libraries located at or near the instructional site, and an expanded use of technology in providing off-campus library support.

Appendix I

STUDENT SURVEY*

1. What is your current status?:
   A) Freshman
   B) Sophomore
   C) Junior
   D) Senior

2. What is your G.P.A.?:
   A) Under 2.0
   B) 2.0 - 2.5
   C) 2.6 - 3.0
   D) 3.1 - 3.5
   E) 3.6 - 4.0

3. Current employment status?:
   A) Full-time
   B) Part-time
   C) Not employed

4. Would you use a library if it wasn't required?:
   A) Yes
   B) No

IF YOU USE A LIBRARY OR LIBRARIES OTHER THAN THE "COLLEGE'S MAIN LIBRARY," COMPLETE QUESTION 5. IF NOT, SKIP TO QUESTION 14.

5. If you use a library, other than the "College's Main Library" select the average number of hours per week you use that library:
   A) Less than three hours
   B) 3 to less than 6 hours
   C) more than 6 hours

6. What resources did you use? Check as many as appropriate:
   A) Periodicals
   B) Indexes
   C) Audio-visuals
   D) Microforms
   E) Card Catalog

7. Which of the following services did you use? Check as many as appropriate:
   A) Reserves
   B) Photocopying
   C) On-line Searching
   D) Reference
   E) Interlibrary Loan

8. Which of the following additional services did you use? Check as many as appropriate:
   A) Library Instruction
   B) Borrowing Books
   C) Other

9. What areas did you find most satisfactory? Check as many as appropriate:

   A) Periodical Collection
   B) Book Collection
   C) Reference Service
   D) Online Searching
   E) Interlibrary Loans

10. What additional areas did you find most satisfactory? Check as many as appropriate:

    A) Convenient Hours
    B) Instruction in Using Libraries
    C) Adequate Parking Facilities

11. Did you find weaknesses?

    A) Yes
    B) No

12. If you answered yes to question 11, please indicate the additional areas with which you were dissatisfied:

    A) Periodical Collection
    B) Book Collection
    C) Reference Service
    D) Online Searching
    E) Interlibrary Loans

13. If you answered yes to question 11, please indicate the additional areas with which you were most dissatisfied:

    A) Inconvenient Hours
    B) Lack of Instruction in Using Libraries
    C) Inadequate Parking Facilities

14. Do you use the "College's Main Library"?:

    A) Yes
    B) No

15. Are you aware of the library services available through the "College's Main Library"?:

    A) Yes
    B) No

16. If your answer to question 15 is yes, what services have you used? Check as many as appropriate:

    A) Interlibrary Loan
    B) Telephone Reference
    C) Photocopying
    D) Online Searching
    E) Borrowing Books

17. If your answer to question 15 is yes, what additional services have you used: Check as many as appropriate:

    A) Toll-Free Telephone Number
    B) Library Brochures, Booklets, and Other Information Materials
    C) Delivery of Books From the "College's Main Library"

18. How often do you use libraries other than the "College's Main Library" to complete your library work?
    A) Always
    B) More than half the time
    C) About half the time
    D) Less than half the time
    E) Never

19. If you used libraries other than the "College's Main Library" indicate why. Check as many as appropriate:
    A) Other libraries are more conveniently located
    B) Other libraries have more convenient hours
    C) Not aware of library services being available from the "College's Main Library"
    D) Other libraries have materials that are more readily accessible and available for use
    E) Other libraries have materials that are more appropriate to assigned course work

20. If you used a library or libraries other than the "College's Main Library," indicate name and location of each:_____________
    ----

21. In what city/town do you reside?_________________________
    ----

22. In what city/town are you employed?_______________________
    ----

23. General comments:____

    ----

* For the purpose of preserving anonymity, the name of the host institution's library has been replaced with "College's Main Library." Other than that one modification, the questionnaires are identical.

Appendix II

FACULTY SURVEY*

1. What is the highest degree you have obtained?
   - A) CPA
   - B) Bachelor's
   - C) Master's
   - D) Specialist
   - E) Doctorate

2. Total number of years of teaching experience:
   - A) 1 or less
   - B) 2 - 3
   - C) 4 - 6
   - D) 7 - 9
   - E) 10 or more

3. Total number of years teaching for "College":
   - A) 1 or less
   - B) 2 - 3
   - C) 4 - 6
   - D) 7 - 9
   - E) 10 or more

4. Is teaching your full-time occupation?
   - A) Yes
   - B) No

5. Do your course(s) require students to use a library?
   - A) Yes
   - B) No

6. If your answer to question 5 is yes, what specific library uses do the course(s) require?
   - A) Reading books outside the assigned class text(s)
   - B) Reading journals outside the assigned class text(s)
   - C) Research papers
   - D) Materials for class presentations
   - E) Other

7. Are you utilizing or recommending the following resources or services, which are available to your students through the "College's Main Library?" Check as many as appropriate:
   - A) Books for borrowing
   - B) Photocopying
   - C) Telephone reference service
   - D) Interlibrary loan
   - E) A toll-free telephone number

8. Are you utilizing or recommending the following additional services which are available to your students through the "College's Main Library"? Check as many as appropriate:
   - A) Library instruction
   - B) Online searching
   - C) Library brochures, booklets, & other information materials
   - D) Other

9. Which of the following services are essential to your students for the successful completion of your course(s)? Check as many as appropriate:
   - A) Books for borrowing
   - B) Reserve collection at the site or nearby library
   - C) Photocopying
   - D) Phone reference service
   - E) Interlibrary loan

10. Which of the additional services do you see as being essential to your students for the successful completion of your course(s)? Check as many as appropriate:
    - A) Library instruction
    - B) Online searching
    - C) Library brochures, booklets, & other information materials

11. Do you make use of libraries other than the "College's Main Library" in your capacity as an instructor?
    - A) Yes
    - B) No

12. What additional library resources or services would you like to have available?_____________________________________
    ____

13. For instructional purposes, which library or libraries would be most appropriate for your needs?________________
    ____
    ____

* For the purpose of preserving anonymity, the name of the host institution's library has been replaced with "College's Main Library." Other than that one modification, the questionnaires are identical.

Appendix III

OFF-CAMPUS EXPERIMENT
STUDENT RESPONSES

N= 162

?	A	B	C	D	E	F	G	Totals	%
1A	2	13	5	7		3		30	18.52%
1B	2	10	6	7	6	2		33	20.37%
1C	4	21	19	8	3	3	6	64	39.51%
1D	2	14	7	3	3	2	1	32	19.75%
2A								0	0.00%
2B	1	1				2		4	2.47%
2C	1	12	7	9			1	30	18.52%
2D	4	22	19	12	5	4	3	69	42.59%
2E	4	22	12	4	7	3	3	55	33.95%
3A	10	55	37	23	11	10	7	153	94.44%
3B		4		1				5	3.09%
3C					1			1	0.62%
4A	5	42	21	18	8	6	6	106	65.43%
4B	5	15	17	6	4	4	2	53	32.72%
5A	5	41	28	13	12	4	7	110	67.90%
5B	3	12	4	3		4		26	16.05%
5C		3	1					4	2.47%
6A	6	50	30	9	10	7	6	118	72.84%
6B	5	35	15	9	5	7	7	83	51.23%
6C	1	5	3	1	1		1	12	7.41%
6D	1	8	1	1	3		3	17	10.49%
6E	5	49	22	13	9	7	6	111	68.52%
7A	1	13	5	6	1	2	3	31	19.14%
7B	3	38	18	4	4	2	6	75	46.30%
7C		15	6	3		1	3	28	17.28%
7D	7	51	30	10	10	7	7	122	75.31%
7E	2	23	6	8	3	1	3	46	28.40%
8A	1	9	4	3	2		2	21	12.96%
8B	7	46	26	13	10	7	4	113	69.75%
8C	1	12	2	2		2	1	20	12.35%
9A	3	33	17	4	5	6	3	71	43.83%
9B	2	28	15	9	5	4	4	67	41.36%
9C	5	37	19	7	7	5	6	86	53.09%
9D		10	5	4	1	3	2	25	15.43%
9E	2	16	4	4		1	4	31	19.14%

Appendix III
(Cont.)

?	A	B	C	D	E	F	G	Totals	%
10A	7	39	23	8	8	7	4	96	59.26%
10B	1	18	6	5	5	2	5	42	25.93%
10C	2	38	22	6	3	5	3	79	48.77%
11A	5	24	9	7	7	2	1	55	33.95%
11B	3	30	20	7	4	5	5	74	45.68%
12A		7	1	1	1			10	6.17%
12B	1	7	3		2	1		14	8.64%
12C	3	5	2	2	1	1		14	8.64%
12D	1	6	2	3	1			13	8.02%
12E		4	1	1	1		1	8	4.94%
13A	2	10	5	3	3	1	1	25	15.43%
13B		3	4	2	1			10	6.17%
13C	2	4	1	1	5			13	8.02%
14A	1	4	1	1	1	2		10	6.17%
14B	9	54	37	22	11	8	8	149	91.98%
15A	5	21	7	4	1	6	3	47	29.01%
15B	5	37	31	20	11	4	5	113	69.75%
16A		1		1				2	1.23%
16B	2		1					3	1.85%
16C		2	2	1	1	1		7	4.32%
16D		2		1		2		5	3.09%
16E	1	5	4	1		2		13	8.02%
17A	2	1					1	4	2.47%
17B		3	3	1				7	4.32%
17C				1		2	1	4	2.47%
18A	1	39	14	10	3	2	6	75	46.30%
18B	3	3	4		1	3		14	8.64%
18C		4	3	2	1			10	6.17%
18D	4	7	13	6	6	3	2	41	25.31%
18E	1	5	3	6	1			16	9.88%
19A	9	53	32	16	11	7	8	136	83.95%
19B		7	4	3	2	2	1	19	11.73%
19C		14	11	9	3	2		39	24.07%
19D	1	12	2		3	2		20	12.35%
19E		1	1			2	1	5	3.09%

Appendix IV

OFF-CAMPUS EXPERIMENT
FACULTY RESPONSES

N= 23

?	A	B	C	D	E	F	G	Totals	%
1A		1	1					2	8.70%
1B								0	0.00%
1C	2	6	4	3	1	1	1	18	78.26%
1D								0	0.00%
1E		1	1	1	1	1		5	21.74%
2A		1	2		1			4	17.39%
2B		2	2	3				7	30.43%
2C	1		1	1		1	1	5	21.74%
2D		1						1	4.35%
2E	1	3			1	1		6	26.09%
3A	1	5	3	2	1	1		13	56.52%
3B			1	1	1		1	4	17.39%
3C	1	1	1	1				4	17.39%
3D		1				1		2	8.70%
3E								0	0.00%
4A			1			1	1	3	13.04%
4B	2	7	4	4	2	1		20	86.96%
5A		2	3	1	1	2	1	10	43.48%
5B	2	5	1	3	1			12	52.17%
6A		1		1		1		3	13.04%
6B		1	1	1	1	1	1	6	26.09%
6C		1	3	1	1	1	1	8	34.78%
6D		2	3	1	1			7	30.43%
6E						1		1	4.35%
7A		2	1	1		1	1	6	26.09%
7B		2					1	3	13.04%
7C		1		1			1	3	13.04%
7D							1	1	4.35%
7E							1	1	4.35%
8A				1			1	2	8.70%
8B		1					1	2	8.70%
8C		1						1	4.35%
8D									0.00%

Appendix IV
(Cont.)

?	A	B	C	D	E	F	G	Totals	%
9A		3	2	3		1	1	10	43.48%
9B			2		1	2		5	21.74%
9C		2	1	1		1		5	21.74%
9D		1				1	1	3	13.04%
9E			1			1	1	3	13.04%
10A			1	1				2	8.70%
10B		2				1	1	4	17.39%
10C		3	1	1	1	1		7	30.43%
11A		5	4	2	1	2	1	15	65.22%
11B	2	2	1	2				7	30.43%

AN ELECTRONIC SOLUTION FOR EXTENDED CAMPUS LIBRARY SERVICES

Doris R. Brown
Director of Libraries
DePaul University
Chicago, IL

The issue of providing library service for students at external degree programs is as old as the movement to bring the college or university programs to the student, rather than expect the student to go to the college or university in its primary established site. It is a world-wide issue, with special attention paid it in states like Wyoming and countries like Australia where great distance separates the student from the physical site of the "main campus." For many years the land-grant institutions and other state institutions have offered extension courses at scattered locations away from the main campus locations, with library services stemming from the main campus library or relying on local public libraries-- when they were thought of at all. In many cases, the students at such extension programs relied only on the textbook or other assigned reading provided by the instructor, in effect never being required to use a library at all.

However, as an increasing number of adult students have been entering higher education to resume baccalaureate studies or to further their graduate education for career and promotional opportunities and as demographic shifts have moved the college-age population away from the central city to the suburbs, the number and variety of such external degree programs has increased as more colleges and universities move to meet the demands of the market. In Chicago, DePaul University decided to establish two suburban campuses as degree-granting campuses of the university to further the institution's tradition of providing quality education at times and locations convenient to its Chicago-area clientele. The external degree programs offered by DePaul University at its O'Hare Campus in Des Plaines and its Oak Brook Campus in Westchester are designed to serve the needs of "adult learners," adult students over 21 years of age, usually employed full-time. DePaul recognized that for adult students, with multiple demands on their already heavily scheduled professional and personal lives, ready access and convenient location would be major factors in their choice of an academic institution and so moved to meet the market.

DePaul has a long history in Chicago of providing high-quality educational and professional programs which have produced many of the business, legal, political, and educational leaders in the metropolitan Chicago area, and the university's concern in introducing the two new campuses was to provide the same level of course offerings and academic support services as are offered at the two main Chicago campuses in the Loop and at Lincoln Park. Course offerings at the suburban campuses are also scheduled to reflect the subject interests of students in the suburban geographic areas, with the majority of both regularly scheduled classes and professional institutes in the areas of business and computer science.

In planning for provision of library service at the suburban campuses, the DePaul University Libraries also wanted to guarantee the same level of service offered at the Loop and Lincoln Park libraries, at the same time recognizing the limitation of physical space and avoiding costly duplication of books and journals already received at the Chicago campuses. DePaul's library collections are divided between the Loop Campus and the Lincoln Park Campus, with the Law Library and the General Library in the Loop and the General Library also at Lincoln Park. There are separate administrations for the General Library and the Law Library, but collection development and automation programs for both are planned and organized cooperatively to maximize the university's resources. Although the General Library has two locations for its materials collections, procedures for the library functions are alike at the two locations because there is only one administration for the General Library. The organizational structure has been refined so that only the reference function has a department head on each Chicago campus; all other departments have only one department head who commutes between the two Chicago campuses. This single administrative structure ensures that library services are consistent between the two Chicago campuses, and the library wanted to extend that consistency to the suburban campuses. Such consistency is especially important at DePaul since many students take courses on more than one campus and therefore use the library in more than one location.

Although the library collections are divided between the two Chicago campuses, on-line access to all collections is available from any DePaul campus, and an inter-campus shuttle transfers library materials between the two Chicago campuses. The Loop Campus library collections are primarily focused in the areas of commerce and computer science, with representative collections in the humanities and social sciences. The Lincoln Park Campus library collections strengths are in the liberal arts and sciences, music, and theater. Both Chicago campus library facilities have chronic space shortage problems, with long-established policies to attempt to control collection growth by weeding outdated material and by avoiding unnecessary duplication of books and journals. Therefore, planning to get the greatest use from premium space was very familiar to the library.

An additional consideration in initial planning was that the library service at the suburban campuses meet the Association of College and Research Libraries' Guidelines for Extended Campus Library Services (1) which stipulate that the library satisfy the curriculum requirements of university programs through its own collections, not relying on the collections of others for primary materials. This policy has long been the operating standard in the state of Illinois for all the cooperative library programs endorsed by the Illinois State Library and by the Illinois Board of Higher Education, and serves as an important incentive to promote better library service throughout the state. While these cooperative programs in Illinois place primary responsibility for satisfying student and faculty curricular needs on the parent institution's library resources, they are intended to share library resources among all libraries in the state, with a variety of programs available to provide broad access to library collections. The ACRL Guidelines allow for contracts with another library to provide facilities and/or services, but the experience of another university library in Chicago which contracted with a public library, as well as other experiences with such arrangements nationally, did not present a positive climate for such arrangements, so DePaul decided it should provide its own facilities, its own personnel, and its own services.

With these considerations as primary elements in designing library services at the suburban campuses, DePaul's decision was 1) to focus on providing access to materials and 2) to supply library materials as they are needed by students. No books, periodicals or other library materials are located at the suburban campuses, except for one dictionary. Instead, materials are located through computer-based access, and then requested materials are sent to the suburban campuses through telefacsimile for journal articles or through a shuttle delivery system for books. The decision to implement an "electronic library" at the suburban campuses meant that the book would be immediately absent, rather than immediately present. Faculty can place materials in any format on reserve for their course use, with whatever circulation time they feel will meet the needs of their students. A photocopying machine is available at each suburban campus so students can copy materials if they cannot be used within the stipulated reserve circulation time. Audiovisual equipment for classroom use or student use is located at each suburban campus and can be scheduled for day or night usage.

Because this approach places heavy dependence on automated systems and other technology, it is a timely solution for a library like DePaul's which has made a concerted effort to incorporate technology into library functions. At DePaul, access to all library collections is provided through LCS (Library Computer System) which is an online database of 29 Illinois academic libraries, including all the state universities, among them the University of Illinois at Urbana-Champaign. LCS gives author-title access to collections with an indication of the circulation status of each individual item, so the library patron knows if a needed volume is on the shelf or is charged out. The system allows direct borrowing privileges to all patrons of all 29 institutions, so that the DePaul student or faculty member can borrow materials not owned by DePaul or not on the shelf from any of the other 28 libraries, and the item is charged out and sent directly to the DePaul location. With over 15 million volumes in LCS, the DePaul patron has a mammoth library at his/her typing command.

State-wide library automation plans include expansion of the LCS system to include subject access and expanded searching to provide a full online catalog of all the materials in the system. This online catalog, already operational at the University of Illinois at Urbana-Champaign and at the River Bend Library System, will be derived from the state-wide OCLC (Online Computer Library Center) archival tapes for Illinois libraries. Currently there are over 300 libraries in Illinois which do their cataloging on the OCLC database. Ever since OCLC's introduction into Illinois in 1976 the Illinois State Library has purchased and stored these libraries' archive tapes. Since all but three of the academic libraries using LCS as a circulation system did retrospective cataloging projects using OCLC, the full bibliographic description of almost every item in LCS will be available on the expanded online catalog, ILLINET Online-- IO. For the DePaul student or faculty member at the suburban campuses, this access to ILLINET Online means that by Spring quarter, 1988, he or she will be able to perform a subject search and find needed materials wherever they are located in any other Illinois library. This system potentially removes location as a primary factor in student and faculty use of library services, and could eventually blur issues of ownership and the right to use materials in the minds of library patrons. Using LCS as a circulation system with only short author-title access has already raised the expectations of DePaul students and faculty at the suburban campuses who charge out to themselves whatever materials they need. It is expected that fuller subject access from ILLINET Online will greatly increase use of inter-library resource-sharing of the system as students and faculty can find materials in the system by subject, rather than just do known author-title searches of materials identified elsewhere.

LCS (and eventually ILLINET Online) is restricted to Illinois libraries, however, and then only to books, audiovisual materials, and titles of some periodicals. For materials not in LCS, dial access to the OCLC database is available at a public microcomputer with simplified instructions to dial in using the Hayes Smartcom software, so that DePaul students can locate needed titles on OCLC and then have the suburban campus librarian request them via OCLC's interlibrary loan system. Not all LCS libraries have entered their periodicals into the LCS database, however, and obviously not all periodical titles are held by the LCS libraries, so the OCLC-based Serials of Illinois Online (SILO) database is used to identify location of periodicals not owned by DePaul; SILO is a union list of Illinois periodicals including special, academic, and public libraries throughout Illinois.

As mentioned earlier, the majority of courses offered at the suburban campuses are in the areas of commerce and computer science, both of which rely heavily on periodicals for class assignments, so subject access to periodical articles is an essential component of library service. Experience at the Loop Campus, where the curricular focus is in the same areas, had shown that programs were needed to allow students to do their own subject database research or for librarians to perform searches for students and faculty. The COM-fiche Business Index from Information Access Company was purchased as the tool to be used by students working alone, but the lack of currency of the monthly updates and the lack of printing capability made it so unpopular that it was replaced as soon as the Wilson Business Periodicals Index was released on CD-ROM. This package, which combines the CD-ROM product with a pre-paid subscription to the online Index, allows students to do their own subject searching without concern for the cost of telecommunications. The librarians at the suburban campuses conduct subject searches for faculty or students who do not wish to perform their own searches, but as ease of searching grows and as the public becomes more computer-literate, it is expected that the subsidized search service performed by librarians will be used mainly for complex searches or for very expensive databases. Although the librarians at the suburban campuses now provide individualized instruction in database searching, plans for library instruction call for extending course-related database searching instruction already offered at the Chicago campus libraries to the suburban campuses.

Locating materials is, of course, just the first step in satisfying information needs. Two methods of delivery have been set up to provide fast delivery of whatever materials are needed, so that the DePaul student can rely on receiving materials within an acceptable time frame to meet class or research needs. For periodical articles, telefacsimile machines have been installed at all four library locations so that an article requested by the suburban campus before the beginning of a class will be at the requesting campus before the class is over. The library supplies the first three pages gratis, and for larger articles the students pays the same copy charge they would pay if they photocopied the material at either Chicago campus. The majority of these telefacsimile requests go to the Loop Campus where additional part-time help have been scheduled to be able to meet the demands of the telefacsimile service. For books, microforms, and other materials a three-times weekly shuttle service connects all four libraries to pick up and deliver materials to and from the suburban campuses. Materials from the other LCS libraries are delivered directly to the two Chicago locations of the DePaul libraries, and suburban campus requests are then trans-shipped when they are received.

Because adult students often do not have familiarity with traditional library service and are pressured by time and schedule constraints, library service at the suburban campuses tries to overcome these factors by user education and student outreach programs offered by professional librarians. A full-time librarian coordinates the services at the suburban campuses with the Chicago campuses in an attempt to achieve the consistency of services mentioned earlier. All librarians are trained in subject database searching with paid attendance at seminars and workshops offered in the metropolitan area. Reference service is coordinated with the Chicago campuses so that the suburban campus librarians refer in-depth questions to the Chicago campuses which have comprehensive reference collections. An auto-dial phone allows students to call the reference desks or the circulation desks at the Chicago campuses if they so wish.

The DePaul Library has also undertaken an extensive marketing effort of its "electronic library" at the suburban campuses to ensure that students know they can expect full library service (except for browsing through the stacks, of course) at the same campus where they take their courses. In addition, an effort is made to personalize the service so that adult learners feel comfortable enough to seek assistance in finding information they need. A personalized letter is send to each faculty member at the beginning of each quarter to inform them of available library services and to seek their assistance in informing students of the services offered. The suburban campus librarians give a brief presentation in every class about library services and offer individualized instruction for interested students. The Library Research Workbook is used by the students in the non-traditional School for New Learning, which requires them to make at least one visit to the traditional library at either campus in Chicago.

DePaul's "electronic library" at its suburban campuses provides an effective model for an urban location where many library collections are concentrated in a small geographic area and where relatively short distances guarantee easy delivery. Clearly, the model is not paperless, as has so often been promised for the much-publicized electronic library written about in the 1960's and early 1970's, but it does provide DePaul students with information and materials they need. Well-developed cooperative programs to share library resources and to provide access to all types of libraries also make the DePaul model easier to implement in Illinois than in another state without the same history of multi-type library cooperation.

Even with these successes, the DePaul experience is not without problems and doubtless will need further refinement in the years ahead. DePaul's forced reliance on part-time librarians has been fraught with problems of scheduling and with varying levels of experience and preparation. Part-time staff do not have the same familiarity with the DePaul library services and collection strengths as full-time staff, nor do they know the collection strengths of the LCS libraries to the same degree as the full-time DePaul librarians. As a result, students do not always receive the prompt service they can expect at the Chicago campuses. Because Chicago is a city with a large number of libraries, and the resulting market demand is great, there is a growing shortage of highly qualified part-time librarians, which has caused scheduling difficulties and necessitated use of a temporary service for part-time librarians during one quarter. Obviously, a temporary librarian agency was not a satisfactory solution since a different librarian came every week. The library has proposed to the university administration that a better solution would be to hire four new full-time librarians to be rotated between the Chicago campuses and the suburban campuses, with some existing full-time librarians also scheduled for the suburban campuses. This staffing pattern would ensure a high level of preparation and would provide for continuity of service and full knowledge of the DePaul curriculum and support services, as well as of the library collections. In this time of constrained budgets in higher education, this proposal has not yet met with success, but an adequate level of staffing, as well as familiarity with the university and its services, along with the library collections and services, should be major concerns for library service at any extended campus.

An extension of this concern with staffing has been the additional burden of work and responsibility placed on the Chicago campuses by the expansion to the suburban campuses.

This problem is mentioned in other studies of extended campus library services (2), but in Chicago as in other urban areas the impact is felt beyond just the extra load of reference questions or the extra books and journal articles to be sent. The suburban campuses are located off the public transportation routes which provide easy and rapid transportation throughout the metropolitan area; instead, a librarian who works at the suburban campus must have a car, since it is the only means to get to the Des Plaines or Westchester locations. Unfortunately, this works both to restrict the number of full-time librarians who can fill in at the suburban campuses and to limit the number of applicants for the part-time positions. While this problem is admittedly unique to an urban area where many people have the luxury of not owning a car, ease of transportation and distance of travel from the main campus are areas of concern for extended campus library service in any location.

DePaul's "electronic library" service is completely dependent on effective telecommunications and an efficient delivery system. While telecommunications have not been overly problematic, an ongoing concern is that system response and dependability must meet the needs of adult students who have little time and much work to accomplish in that short time. Transmission by telefacsimile has been enthusiastically received by students and faculty at the suburban campuses. There have been very few problems with legibility of the telefaxed materials, and the overall quality has been high. The machines now in use, however, are very labor intensive because they are sheet-fed, meaning that an article from a bound volume has to be photocopied and then transmitted by telefacsimile. The prototype machine recently introduced from Japan which permits transmission directly from a bound volume promises to eliminate the labor involved in copying before faxing, but would not allow the unattended transmission now possible with the sheet-fed system. The library does intend to purchase this telefacsimile machine when the price is competitive enough to offset the cost of labor for photocopying.

While the telefacsimile delivery has been satisfactory, the DePaul shuttle system and the state-wide delivery system funded by the Illinois State Library have not always been as reliable. Unfortunately, the DePaul student usually has no alternative to obtaining materials when delivery is problematic because needed materials are often not available at public or academic libraries in the immediate surrounding suburbs, and obviously books cannot be faxed. Although DePaul's inter-campus shuttle has been scheduled for only thrice weekly runs to the suburban campuses, this schedule will be studied and probably be expanded in the immediate future to provide every day delivery. Because the majority of the courses offered at the suburban campuses are in areas which depend on journal articles for curricular reading and research materials, the telefax system has been used very heavily, while delivery of books has been relatively light. As more courses are offered in the liberal arts and sciences which depend more on books for both curricular assignments and research, the delivery schedule will have to be increased to get materials to the campuses in a timely fashion. If the new courses are at the graduate level, the electronic library service will have to be analyzed to determine whether and how it is possible to satisfy expanded research needs at the graduate level. At the present time, the shuttle between the two Chicago campus library locations operates satisfactorily with a once daily delivery, but this experience will not necessarily translate successfully to the suburban campuses where students come to the campus once a week and are not anxious to return later in the week to pick up the library materials they need. Heavier use of materials placed on reserve by the professor might alleviate some student need, but such use cannot provide for research needs in most areas. The ACRL Guidelines section on planning for library services assumes a close relationship among the library, the courses offered, and student and faculty needs and expectations, which means that course planning cannot occur in a vacuum. Careful consideration must be given to what library needs students and faculty will have in the new course and whether/how they can be met. An ongoing needs assessment from the perspective of students and faculty must include library service, and evaluation of the extended campus should be conducted to measure overall effectiveness.

Another area in which the suburban campus library service needs further refinement is instruction, since the existing program has not been re-shaped for the needs unique to the suburban campus situation. The Library Research Workbook is heavily used by the School for New Learning with its suburban campus students, but it should be revised to combine traditional library services and collections with the electronic environment which they use for library services. This same process should be applied to the bibliographies and other finding guides which are published by the reference librarians at the Chicago campuses;

the publications are now geared to traditional library service rather than to the suburban campus libraries. Students of today must all learn to be skilled at research using subject databases, so the suburban campus students are in step with the times, but they must plan their work carefully enough to ensure timely delivery of the materials they need. Doubtless, this requirement will change as more text is available on-line either through DePaul or a commercial service.

Communication with the faculty and other support services can be as problematic at DePaul as at other institutions, but the formerly skeptical attitude about the suburban campuses has been changing to positive enthusiasm. This change in attitude must continue so that the suburban campuses are considered by all to be an integral part of DePaul, not as step-children which receive attention only when there is a crisis at hand or when everything else is taken care of. In the area of support services this is particularly crucial, as Soules makes clear in her assessment that "if a university makes a commitment to off-campus teaching programs, then it must be prepared to carry that commitment to its proper conclusion and support the necessary services that go with it." (3) Students at any extended campus have the right to expect and receive the same level of service they would receive if they were attending the main campus, unless they are in some way receiving a different fee schedule which compensates for their having to acquire in a different way the services which the university otherwise provides students as part of their academic program. The university must also consider carefully the folly of establishing an academic program which it does not support with a full range of services, since these programs can only serve in the long-term to lower the academic reputation of the university and possibly damage the credibility of its entire curriculum.

NOTES

1. "Guidelines for Extended Campus Library Services," College and Research Library News 43 (March 1982):86-88.

2. See The Off-campus Library Services Conference Proceedings, Knoxville, Tennessee, April 18-19, 1985, edited by Barton M. Lessin (Mount Pleasant, MI: Central Michigan University Press, 1986).

3. Aline Soules, "Off-Campus Library Services: Those Inbetween Years," in New Horizons for Academic Libraries (New York: Saur, 1979, p.575).

GETTING THE DISTANT LEARNING STUDENT OFF TO A GOOD START

John C. Adams, Ph.D., Director Extended Degree Program
University of Wisconsin, Platteville

The Extended Degree Program at the University of Wisconsin (UW) Platteville offers a bachelor of science degree with a major in business administration to adults located throughout the state of Wisconsin. This particular program and three others with different majors in the UW System were created in 1979 by the UW System Administration and Board of Regents. The central idea of the extended degree programs is to offer an existing on-campus UW degree program to adults in an extended or off-campus mode. This idea has these unique concepts: 1) off-campus completion of a degree, 2) learning paced by the student, 3) enrollment any working day of any month, and 4) college credit awarded for appropriate work and life experience. Other than for these unique characteristics, the extended degree programs offer a traditional major and degree utilizing on-campus faculty resulting in a degree that is in no way distinguished from that earned by on-campus students.

The Program at UW Platteville is currently averaging an annual enrollment of 400 individuals for an average full-time equivalent of 240 (15 credits is a full-time enrollment). These students are scattered over the entire state of Wisconsin. The biggest concentration (35%) is in the Madison area 75 miles to the east of the UWP campus; the second largest concentration (28%) is in the Milwaukee area 150 miles east of Platteville. Only about 7% of the program's annual enrollments are in southwest Wisconsin; the remaining 30% of our enrollment is scattered over the north central portion of the state.

The average student enters the Program with about 50 semester college-level credits. The main way that the remaining 78 credit requirements for the degree are completed is via the Program's independent study courses, although about 35% of entering students attempt to gain credit for their experience, earning on the average 20 credits.

A student can enroll in up to 18 credits at one time and has one year (12 calendar months) to complete these credits. The course designed to orient the new student to college level learning and to good study skills as many programs of this sort employ? The answer to all of these questions is that the vast majority of program students have attended college previously and it was felt that this background was sufficient and that a reintroduction to college level learning was not appropriate.

The theme of the student orientation workshop is that the student is responsible for his/her education; a corollary theme is that the student must take charge of her/his education. The Program staff member presents the workshop with the attitude that the staff wants the student to succeed, but that most of the actual work is up to the student. This helping attitude provides a positive learning atmosphere for the student.

The new student orientation workshop is made available to students in their second to sixth month of their first enrollment via teleconferencing and by offering the workshops in local geographic areas where there are large concentrations of students. The teleconferenced workshops can be attended by going to a local site or by using one's home or work telephone, depending on the system used.

The workshop is based on the student handbook and is broken down into three areas: 1) program specific facts, 2) time management/goal setting, and 3) problem solving.

twelfth month of the enrollment period is the only "definite" deadline in the enrollment. Even this 12-month period is not definitive because extensions of up to 6 months can be and often are granted. The upshot is that there are no explicit deadlines within any given course, only the stipulation that all contracted credits must be completed within 12 months. Initially, the Program experienced a very poor credit completion rate and, consequently, a very high drop-out rate. Curiously, the student seldom blamed the program for either failure - the failure to complete credits and courses contracted and the failure to graduate. Nonetheless, the staff of the Program were concerned. A high drop-out rate meant a high expense for recruitment; it also meant a low graduation rate.

A number of steps were taken in an attempt to remedy the situation. One of these remedies was the decentralization of advising for a more individualized approach. Initially advising was done by 1 or 2 key individuals; there are now seven faculty who advise. A second "correction" was the concerted effort to improve the quality of the course manuals. Another effort was the teleconferencing of parts of courses, which was soon replaced by course pacing*, over the statewide educational teleconferencing network. None of these efforts seemed to alleviate the problem as the low credit completion rate and high drop-out rate persisted, albeit with a slight improvement. The advisors soon became painfully aware of ignorance on the part of the student as to how the Program functioned, what the student should expect from the faculty and staff, the specific degree requirements and the options open to the student. Consequently, a student handbook was written and the idea of a new student orientation workshop was conceived.

But why a new student orientation workshop? Or, why only an orientation workshop? Why not a workshop, or better yet, a

---

*Pacing is the offering of a faculty review of each major portion of the course after the student has completed the assignments. After each review session the student is to take the module exam.

II. PROGRAM SPECIFIC FACTS

To use the Program effectively, the individual student should know specific facts about the degree and program. These facts include: 1) degree requirements, 2) re-enrollment, 3) starting a course, and 4) enrollment options. Ignorance or complacency in any one, or worse, all four, can make one's experience in the Program at least distasteful and perhaps disastrous.

Prior to their first enrollment, a student receives a detailed evaluation of his/her college transcript(s). All courses that transfer are noted on a set of degree requirements sheets, a copy of which the student receives. The student is also told how many credits remain to earn his degree, both overall and in specific areas, as well as the number of upper-division and "resident"* credits remaining. In the orientation workshop as well as in the initial advising session, the student is told that he/she is responsible for knowing the degree requirements as well as keeping track of the same. The tracking is particularly important because many students will combine program independent study courses with on-campus courses from any UW System institution, independent study courses from other sources, credits by evaluation of both work and life experience, as well as technical school business administration and business administration-related course work, departmental test outs, etc. Keeping track of credits coming from all of these sources is a difficult task. Only the student is fully aware of where all of his/her credits are coming from. Thus, it is the student's responsibility to keep a record of all credits completed and to make sure that the Program office receives all official transcripts.

In the same vein, it is important for the student to be aware of any and all guidelines and restrictions that there may be in taking courses outside of the Program for purposes of transferring into the Program. First and foremost, the student should always check with the Program to assure that the course she/he is considering taking outside of the Program will satisfy certain program degree requirements if that is the student's intention or that they will at least transfer. Course numbers, titles and credits don't necessarily equate across the UW System; a Program staff member maintains a course equivalency table for the UW System.

---

*Thirty-two and 23 of the last 32 credits must be completed under the guidance of UW Platteville faculty. No actual physical presence on campus is required.

There is "rule" the student must be aware of when taking courses outside the Program. This rule is that only 72 credits maximum may transfer from a two-year school; once 72 credits, *regardless of source*, are earned no credits will transfer from a two-year school. However, exceptions may be granted. Requests for exceptions to this rule must be received in writing from the UW Platteville Registrar *prior* to enrolling in a course from a two-year school.

It is possible to combine program independent study courses with non-program courses on a Program enrollment plan so as to take advantage of a financial break the UW System affords full-time students. That is, if a student enrolls in up to 18 credits, the student only pays for the first 12 credits. If at least 9 credits are Program independent study course credits, a student may enroll in up to 9 additional outside credits on an enrollment. The enrollment plan must specify department, number, title and semester credits for all non-program courses. Prior to the term of enrollment in their outside courses, the student must request a transmittal letter from the Program. The letter states the course(s) to be enrolled in and that all tuition has been paid. The student will be responsible, however, for any on-campus user fees and must also be aware that a specific course may be closed, especially to a SPECIAL student (non-degree seeking student at the institution). All Program students taking courses outside the Program must enroll as "special" students

The student is also made aware that after completing a non-program course an official transcript must be sent directly to the Program. At this point, the student is informed that technical school courses transfer only at the time of the first enrollment. After enrollment in the Program, the student may not take additional technical school course work and have it transfer. If some of this previous course work has to be evaluated by the program faculty, faculty determined equivalencies are *not* "residency" credits. In the same vein, work and life experience is evaluated only once. Such credits are, however, resident credits.

Another program area that the student must understand is that of re-enrollment. There is no need to go into detail concerning the enrollment process. The biggest problem with re-enrollment is that the student thinks that because the enrollment contract is for a 12-month period that one has to wait for the 12 months to expire before re-enrolling in a new set of courses even though all credits were completed. The student is also often of the mind that all credits on one's contract had to be completed before a new set of credits were enrolled in. The student is often surprised to learn that he/she can be completing a course on one contract while enrolling in a whole new set of courses on a new contract. Misconceptions of this sort are important if they delay the student's progress.

The student also has to be aware of Program procedures for getting started. A considerable amount of time is spent on explaining how to get underway and on starting a course. First and foremost, the student must nominate an exam proctor who is acceptable to the Program. The stress is on a professional-type person administering the exam in a professional setting. The proctor should not be primarily a friend nor a colleague or subservient at work.

Other items of concern in getting started and starting a course are: 1) purchasing course texts. It is stressed that the student pay particular attention to the edition specified. It can be very frustrating attempting to use a course manual written to a different text edition than the one the student has. 2) ordering exams. The student must specify the specific course by department, number, title and instructor. Unfortunately, course numbers are often very similar. Further, some courses have multi-instructors. Receiving the wrong exam can be very exasperating. The student should order an exam by calling the program's toll free number and ordering the exam by giving the required information to the program assistant answering the telephone or by writing directly to the faculty/student coordinator. Valuable time is wasted by leaving messages for the instructor or advisor, only to find that all the student wanted was an exam to be sent. Also, the message for an exam is often lost if included with course assignments or if the message is written in a course assignment.

A final area that a student should be informed of is options available to the student on her/his enrollment plan. Although the basic contract period is 12 months, the student can receive up to 18 months per contract or at least have an additional six months to complete a contract. One of the flexibilities of the Program is that the Program can offer the student extra time if something happens in the student's personal or work life within the 12 months of an enrollment that prevents the student from pursuing his/her studies. When a student enrolls, he or she believes that they have the time to pursue the course of study. But sometimes a month or two into the Program, the boss reassigns the student or the student or someone in the immediate family takes ill. Out go the good intentions to study. The Program recognizes these situations can happen and gives the student the option of "sitting out" up to six months of the 12 months via a "hold" on their studies. The one to six months are then added to the end of the contract. The hold equals the approximate amount of time a student thinks the "disruption" will last. It is felt that it is important to recognize the disruption to one's studying when the disruption occurs and to prevent the interruption from permanently bringing a halt to one's studying. The student feels better about his/her predicament because of the hold rather than guilty and, providing the disruption is short-lived, tends to return to his/her studies.

In conclusion, spending time with the student on so-called program specific facts prevents a lot of "headaches" on the part of both the student and Program staff, advisors and faculty. Understanding some specifics about the Program enhances, or at least does not hinder, the student in his/her academic progress.

III. Time Management and Goal Setting

At the time that the now-enrolled student is accepted into the Program, the student as a part of the pre-enrollment process is asked to complete a time schedule for an average week. This exercise is requested so that the potential student can determine the amount of study time available to calculate the number of credits he/she can enroll in for his/her first 12 month enrollment. The Program rule of thumb is one hour of study time per week would allow the student to complete one (1) credit per year. This time schedule is built upon doing this segment of the orientation workshop. The stress in the orientation workshop is to emphasize that the student stick to the study times that were isolated in the original time study. It is also pointed out that if the student does not have at least two hours to study, that one's schedule be rearranged so as to create a two-hour study block. Suggestion is also made to free up other times of one's day for studying. More on this later.

Once the study time is referred to, the workshop moves into a discussion of goal setting for the 12-month enrollment period. First, the student has to decide how he/she is going to complete the courses enrolled in. That is, the average student enrolls in three courses - usually three semester credits each; the student can complete these courses in several ways. The normal procedure is to complete one course at a time, but always to be working on another course using the time when waiting for faculty feedback from the first and primary course. In this way, precious little available study time is wasted. Some students, however, find that working on only one course at a time is best for them; others discover that working on all courses simultaneously, as if enrolled on-campus, works best of all. The general philosophy of the Program is that in a part-time program it is important, at least in the first enrollment, to complete one course as quickly as possible rather than completing all 3 courses 12 months down the road.

Whatever the way in which the student plans to complete the courses he/she is enrolled in and whatever the term--preferably 12 months or less, it is important that the students set goals for themselves. A rather detailed schedule for the length of the enrollment period is recommended.

If the student has enrolled in three courses, three credits each, the student may elect to finish each course in four months, one after the other. Then it is recommended, using the course manuals and textbooks for each course, to break down the four months indicating when each exam or major assignment should be completed. Finally, the student is asked to schedule the assignments leading up to each exam or major assignment. It is important that the student think "small" rather than "big." That is, the student should look at completing small segments of a course each week, etc., rather than to think "I'll complete 9 credits in 12 months." In this manner small segments of a course are completed, soon adding up to the much bigger completion of an entire course.

The student need not make as elaborate a plan as suggested, but definite intermediate goals (completing each course in four months) and goals within these should be established. The student then needs to stick to his/her established study schedule. Success is not guaranteed, but academics has not been the major reason the student has "failed."

IV. Problem Solving

This segment is probably the most satisfying part of the orientation workshop. It is satisfying because one can help the student to resolve a problem. However, there is not usually a part of the orientation workshop called "problem solving." Usually, problems students face crop up throughout the workshop presentation. This problem solving section is a separate heading merely because it is easier for organizational purposes. Further, the problems mentioned here are not all inclusive; they are ones that are heard in nearly every workshop. Almost every workshop uncovers another problem area the student faces.

Perhaps the most common problem encountered is that the student can't find enough time to study. First and foremost it is emphasized that if the student is to succeed, a major commitment must be made. That means getting out of old commitments and saying "no" to new commitments. Making a commitment also means giving up some or many of the pleasures of life. Commitment also means not letting one's self be distracted by others. Studying has to be one of the student's major efforts.

Besides making a commitment, suggestions are made as how to make the best use of idle time. Some of these suggestions were culled from the Program's more successful students. For example, one can study during the lunch hour, while waiting to call on a customer and while traveling (providing the student is not driving!). If a student studies on an overnight business trip (and it is suggested that if the student travels a lot, he/she must study), he/she should eat a light dinner or take a dinner in the room, drink no alcohol and use this time to study. The student can also create study time by getting up early before everyone else gets up or by staying up late after everyone goes to bed. One can also stay after work and use the time to study. Finally, the student can take the entire family to the local library for a family study hall. Lack of adequate study time is not really a problem if the student is committed to studying and if the student uses a little creativity.

There are, however, other problems that plague the Program student.

Often the new student will start a course that is too difficult or distasteful. Advisors try to match the beginning student and course but sometimes there is a mismatch. In this case, we suggest that the student drop the offending course for the time being and start another course on his/her enrollment plan. If the student has only signed up for one course, the student is advised to contact his advisor so as to drop the offending course and add another course.

Another problem encountered is timidity in taking the first exam for a course, and sometimes, any exam. Whatever the reason, the student is encouraged to take the exam (first or otherwise) after he/she has done everything that the course material tells the student to do. The faculty do not demand perfection from the students and the student should not of him/her self. Most course manuals have sample exams. Besides, if the student really "bombs" an exam, most faculty are flexible enough to give a make-up exam. The student is also told that over the life of the program, the average grade for any course is a high "B"! Further, if the student does not finish a course, this does not enter into the student's official record.

Often students will express despair because progress on an individual course or courses on the first enrollment is so slow that they can not foresee themselves ever graduating. At this point, the student is reminded that they're usually just starting this new adventure after being out of college for many years. It takes time to revive rusty study skills. The student is also learning a lot about him/her self regarding how they learn best, etc. If the student keeps at it, the speed of individual course completion will increase. The student is also reminded that his/her studies are part-time. One can't expect to complete 30 or more credits a year. The student is encouraged to push him/her self as well as to find more study time and use idle times to study.

Often a student will enroll in a course for which the material is familiar and perhaps is already known. If the student is doing a portfolio for evaluation of life and work experience, the course could be added to that list. (The course would then be dropped from the student's enrollment plan and another course substituted.) Another possibility is discussing the situation with the course instructor. Perhaps the student can take the test-out exam or maybe the instructor will allow the student to substitute his/her experience for part or all of the course.

Another problem in a similar vein is that the student finds her- or himself taking a course which does not suit the "student's learning style." We suggest discussing this situation with the course instructor, perhaps working out an alternative plan of study.

There are other problems confronted by the new student that are more logistical in nature. One problem encountered is that the student has ordered course materials for a new course three or four weeks ago (this time period is usually vague), and the course materials have yet to arrive. Or an exam ordered "some time ago" hasn't arrived yet. At this point the student is informed that such requests are mailed the next working day after received in our office. Unfortunately, oft times, the student does not communicate the request directly to the staff, but includes the request in course work being sent to an instructor and sometimes will call the faculty or advisor who, not being in his or her office, will receive a callback request only to find that the student wishes appropriate course materials be sent. All of this, of course, takes longer in itself. Often the communication is delayed because the call does not get returned immediately or a game of "telephone tag" starts. Further, if the request is included in homework or on an exam, the faculty may miss it. We emphasize that the student should call our office toll-free and give the request to the program assistant or write directly to the faculty-student coordinator.

Another logistical problem concerns textbooks. Often the student will complain that a text or texts ordered weeks ago have not been received. Texts are sent within five working days after the order is received at the University Bookstore, provided the books are in stock. If certain books are not in stock, the student is notified. Books are sent via the library rate, but should be received within a week. The upshot is that if a student has not received the texts ordered after three weeks, the student should call the Program office. Often the student causes the delay in receiving texts. Book order forms with pertinent information including the then current price are only sent to the student when the student indicates she/he wishes to start the course. However, the student will often delay for months ordering the text with the result that the text itself has been changed or a price change has occurred. Students are reminded to order books immediately and if a delayed purchase is necessary, the student should check with our office before ordering. The same problem also occurs with texts as often occurs with course materials. The student is instructed to send his book orders directly to the University Bookstore and not to include them in course materials being sent in, etc. The problem with this has already been mentioned. Another delay is that the student will send book order to our office. We then have to place the order in inter-campus mail, adding another day or more to filling the order.

A final logistical problem is the reported slow response of faculty to submitted homework and completed exams. Faculty are encouraged to respond within two weeks of receiving homework or exams. After two weeks, the student should contact the Program office and state his problem to the program assistant. However, anyone who is or has been a University faculty member knows that there are certain times of the year when the faculty member either is swamped with work, such as at exam and registration times, or is not on campus, such as during Christmas and spring breaks and between spring and fall semesters and summer school.

Every attempt is made to make the student aware of these absences. If a faculty member is away for extended periods of time, often another faculty will cover. The point is that to some extent the student has to plan around the on-campus schedule. However, long delays should not be tolerated and the student should contact the Program office.

In short, one of the major benefits of the orientation workshop is to discover what problems the student may be encountering and to offer constructive solutions. The earlier the student overcomes the obstacles facing his or her studies, the greater likelihood of success.

VI. Summary and Conclusion

The Program staff is convinced that the student orientation workshop is appropriate. The major problem at this point is to get the newly enrolled student to attend a workshop. Workshop offerings have been expanded in number for convenience. Students are introduced to the workshop in the initial enrollment session; the workshop is placed on their enrollment plan. Finally, the student is sent a letter before each major workshop offering. Attendance has gone up, but still only about half of those students who should attend do so. Unfortunately, we have yet to see a significant improvement in the rate of credit completion or program retention. It appears that extended degree programs such as this one can not expect completion and retention rates much higher than 50%. Nonetheless, we do expect to continue the orientation workshops because of the positive image it gives the Program. Being thought of as a Program concerned with the student and as one that wishes to help is essential, especially in today's market for the adult student. The student may fail, but at least he or she will not place the whole blame on the Program.

HELPING LEARNERS DEVELOP AUTONOMY:
IMPLICATIONS FOR EXTERNAL DEGREE PROGRAMS

Dr. Danny Fulks

Professor of Education

Marshall University

Huntington, WV 25701

(304) 696-2883

The problem of having learners take the responsibility for self-direction in pursuit of their general and specific goals is both significant and difficult to address. There seems to be both implicit and explicit outer directions in institutions that maintain the archaic notion that success may best be achieved by following a set of instructions and guidelines handed down from an array of authority figures from religious, political, and social fields.

The process of doing what one is told to do begins early. From the time infants are brought into the home culture, there is likely to be a "boss" around somewhere. Mothers, fathers, relatives, Sunday school teachers, youth club leaders, doctors, ministers, neighbors, school teachers, and politicians are usually more than willing to present a set of values and behaviors for their followers to accept. It sounds good. The wisdom of the ages should be passed along to each generation; the peoples of the world must separate into leaders and followers; don't worry, papa knows best.

There are, however, numerous flaws in the process of social and emotional acculturation when authoritarianism reigns: An anecdote from a typical elementary classroom situation demonstrates the problem. Early in their school lives, children become close observers of the dynamics of formalized classroom procedures. Mr. Teacher, for example, asks the students to write a short paragraph about their pets, hobbies, family, or subject of choice. After a period of time the papers are collected and reviewed by Mr. Teacher. He may select a paper he feels is especially good and read it aloud to the class while Alice, the author, beams. Later, when the other papers are returned to the students, George finds that his paper has numerous red marks: checks, circles, underlines, crooked arrows and, perhaps, comments such as, "needs more thought," and, "very sloppy." Now George is not as dumb as one may think. He notices that Margaret's paper is just bland: few red marks, an "O.K.," and no reading for the class. George's goal has just been established by the authority figure, Mr. Teacher. Be safe. Do what is necessary to get into that big middle ground. Don't venture out into the unknown. These social pressures will probably be effective. And while Mr. Teacher regularly lectures and exhorts his young students (note that he owns them) to follow the path less travelled, to go forth into the unknown, to identify with heroes, the covert ethos of the classroom provides a different message. The covert message is that students must submit to external controls.

There is normally very little deviation from the type of teacher/learner situation described above throughout each student's years of education, from Kindergarten through graduate school. The author's experience has been that both undergraduate and graduate students come to the classroom looking for direction, and when requested to strive toward self-direction within the guidelines of the course, much bewilderment occurs. Another anecdote dramatized this problem: The assignment for an undergraduate class the author was teaching contained a list of projects and procedures students might choose to do for credit points. When the class pressed the instructor about the different items on the list and when they had to do them, he explained that they did not have to do them at all; that they must choose whether and when to do each item and, in fact, didn't have to do them under any circumstances if they felt they didn't need the points for their evaluation. Their first reaction was ecstacy, especially as they saw that they might not have to do a demonstration lesson with their peers.

They went into the hallway after class saying jubilantly, "We don't have to do it, we don't have to do it!"

The jubilation was short lived. As they came to realize that they were deciding whether to receive a low or high grade, the cries became more like, "We don't have to do it, we don't have to do it, what are we going to do?" Most of them came through even though it was painful for them. But, if it's true that in physical exercise no-pain means no-gain, perhaps the same principle is true in mental discipline.

With a limited amount of personal autonomy among the regular campus student population, it becomes apparent that dealing with off-campus students presents a more intense problem. It is reasonable to assume, furthermore, that students whose native land and habitats are away from the centers of campus life are more provincial and have fewer opportunities to increase their sophistication.

Given these problems, what are some actions education personnel can take to increase the level of autonomy in individual students in off-campus programs? A further refinement of the areas that may be considered for development includes: learning to make choices, listing alternatives, controlling variables, sequencing events; and Lawrence Kohlberg's conceptual framework for democratic schooling which includes involvement in decision making, taking positions based on reason, collective decision making, and helping to maintain group norms.

To illustrate these concepts, a given off-campus program may have an enrollment of two-hundred students, most part-time, and older chronogically than average students. The population is usually at different stages in their programs, have several different advisors, different goals, different economic and other personal situations, and different abilities. All of these factors exacerbate the difficulties in the development of autonomy.

There are ways, however, to deal with these problems.

1. Making choices: Off-campus programs should include a menu from which students may choose. This menu may include not only the list of degrees or certificates offered but options within the programs. For example, degree and certificate options may include education, computer programming, paralegal, business management, and others. After choosing to attend school, this is the student's second major decision. Program representatives must remind students that they are making their own decisions--there should be no propagandizing or proselytizing by the degree-granting institution. Checkoff points should be integrated into each program and students should take responsibility for proper sequencing of events. For example, if, after 12 credit hours a student must apply for

candidacy there should be a system--preferably computerized--to alert advisors about whether the student had initiated the action. Mild sanctions such as requiring the student to attend selected self-help seminars should be implemented when students fail to respond to the initiatives for which they are responsible. Rewards such as certificates, letters from authorities,and the waiver of certain program hurdles may also be used as incentives to get students to see how they have control over their progress and the advantages to them of taking charge. Clear directions about the incentives and sanctions must be given to students when they enter the program. A common complaint from students will be, "I didn't know I was supposed to do that." Having them sign a form indicating they received the initial guidelines may be desirable.

2. Preparing Alternatives and Selecting Controllable Variables. Programs of study should contain within their academic and procedural structures a number of alternative routes to the achievement of the program goals. For example, if it is desirable for a program to provide a certain amount of exposure to the humanities, any appropriate courses or learning experiences should be acceptable in completing this requirement. Another option might also be to list those courses that are acceptable and also leave an opening for students to propose alternative courses to be approved by a committee of advisors. Offering

a menu of academic routes to competence not only forces students to experience the feeling of self-control, it concedes to the fact that few programs of study in any professional or technical field have monopolies on the latest, best, and final knowledge and skills; these change so rapidly that no bureacracy can keep up with them. Those practices within the program process may, in fact, be the only part of individual programs that have life-long experiential benefits for the students that will not be replaced by new knowledge.

Students must learn how to determine which program and personal variables are controllable and which are fixed. Much of the frustration and confusion that exists within bureacratic systems--even within families--is a result of individuals passing over controllable events and struggling with events and obstacles that are fixed.

Students must be placed in situations where they are forced to deal with taking control of situations and knowing how to isolate those areas where control is possible. One way to do this is through a team effort on the part of instructors and advisors in external degree programs. Course requirements may be divided into two areas: (1) must be done by all class members and (2) select any five of the ten listed activities. If about 50 percent of the course work comes from those areas where flexibility is permitted, a good deal of autonomous growth by students may be experienced. This also enables students to determine and enhance previously learned areas of superiority. For example, a student may be given the choice of: (1) preparing a book review on a relevant topic or (2) interviewing a person on audio or video tape who can provide relevant information; or (3) preparing an audio-visual display through arts and crafts to teach a concept or communicate research findings; or (4) viewing films and/or attending live performances and lectures that may enhance the solution to the problem at hand. These, then, become variables controllable by the student. On the other hand, the contents of the final exam, even though taken from events available to all, will probably be a variable over which the only control the student has is to prepare himself for it. These students must learn that they are not victims of luck or some outside force from the cosmos when they receive their evaluations.

The development of personal growth through education and experience is not a new concept; it is one, however, that remains elusive in implementation. The establishment of a contemporary theory for the development of autonomy through democratic schooling is best described by Lawrence Kohlberg of Harvard. His work, writings, and experiments in moral development and "just community" schools have established selected ideas which extend John Dewey's educational philosophy into a town-meeting type government.

In the midst of an era where an authoritarianism which tends to diminish the spirit reigns, Kohlberg provides inspiration to those who believe in freedom and democratic schooling.

The goals of Kohlberg's theories should be considered as the groundwork for implementation of selected aspects of external degree programs. These goals are:

(1) *Involve participants in decision making*. Although geography, distance, and population may impede the implementation of this goal, it is still possible to advance movement in this area. Cluster groups could be formed in each local area--something like local alumni groups--to meet monthly to discuss problems and provide program input. A campus supervisor could attend these sessions. A student representative could be elected from each group to meet together monthly with representatives from all local groups in the program areas. Participation in this process should be required. Perhaps an hour's credit or some other form of incentive could be attached.

(2) *Role exchanges, coordination of reasoned positons among the group members developing consensus, and facilitation group cohesion*.

The idea of role exchanges, familiar to most children who have had to take their turns leading the pledge to the flag or leading devotions in summer bible school, often becomes lost in adult bureaucracies. The professional concepts of specialization, power, privilege, and the traditional hierarchical approaches to supervision have precluded all but the most limited experiences with role exchanges. Role exchanges could be instituted and nurtured, however, among student groups in both organizations and in class structures. Peer teaching in regular class episodes and taking turns in providing leadership for student organizations are two ways this concept could be practiced.

(3) *To have the individuals grow increasingly attached to the group and its process*.

Again, this is a process which can only come through experience and practice, as in a family that works well together; that plays down one member's strengths in order to increase the stength of a weaker member. In an educational setting, it requires sessions where all members are accepted into the class family. To grow attached to a group requires that individuals view their roles as vital to the process of positive achievement for all. Sharing and permitting personalities to reveal themselves is a vital part of such a process. To make this concept successful requires that the teachers (the part-time leaders of the groups) allow their personas to be diminished in order that the class members may take on leadership roles. This same process can work in the off-campus meetings of class members in settings within the attendance area. An example of how institutional leaders can facilitate this process is to have them communicate information to one group member to share at selected sessions and to another group member for the next session.

(4) To have them grow increasingly willing to take responsibility for running the group, maintaining its rules and norms, and implementing its goals.

To implement this goal requires that a network of people be developed who have a mutual bond toward other group members and an interest in their welfare. This can be dramatized by the consideration of how groups may work together for the mutual good of all when they are in a dangerous situation. In emergency situations, it is very common for several individuals to come forward and play out heroic roles. Although less dramatic, maintaining group norms in an educational venture can be implemented and maintained through planning and commitment by educational leaders. They are the persons responsible for establishing the atmosphere under which self-direction can grow.

These are times when professionals in the helping professions must be increasingly aware of their responsibility for helping people grow and understand participatory democracy. At a time when religious and political gurus threaten the fiber of the democratic order--when personal charisma has overtaken the reserved competence that moved the nation forward in the past--educational leaders must assume an active role in the development of secure persons who can make their own decisions.

RESPONSIBILITY-SKILLS FOR THE RETURNING ADULT STUDENT

Presenter: Dr. Norma J. Strickland
East Arkansas Community College
Forrest City, AR 72335-9598

A dramatic shift in the composition of student population is occurring in colleges and universities throughout the United States. The typical college student is no longer the full-time resident between the ages of 18 and 22. Between 1972 and 1982, the percentage of the adult population in the 25- to 34-year-old age group increased significantly. Currently, over one-third of all college students are over the age of 25, and by the year 2000, there will be in excess of 20 million adult students (Betters-Reed, 1980). So dramatic is this shift that the growth and significance of many higher education institutions are becoming dependent upon their ability to attract and retain older students. How to effectively serve this diverse student population is a major concern in higher education today, especially in community colleges.

Increasing numbers of adult students are realizing the need for a formal education by enrolling in East Arkansas Community College. The reasons many of these nontraditional students are enrolling or returning to EACC are often related to occupations--either beginning an occupation, improving in one's occupation, or changing occupations (Strickland, 1985). They are enrolling with raised expectations on what they hope to accomplish. Unfortunately, many of these students are experiencing anxiety and frustration in fulfilling these expectations. Despite an orientation for entering students, many of the adult students eventually withdraw from academic classes. They are withdrawing, not because they lack intelligence or ability, but because they lack sufficient learning strategies. This deficiency is not an indication of their capability, but a lack of insight on how to develop responsibility-skills that will improve their learning strategies.

The desire to reduce high attrition rates led the director and laboratory supervisors in the Student Support Services Project to conduct a survey among the students to identify their needs for support services. The needs analysis survey contained 28 items and asked students to rank their academic, social, and personal needs in order of importance. Obviously, no "program" could possibly address all of the problems and needs of its students; therefore, it was critically important for the Student Support Services Staff to selectively identify which of the student needs and problems to address and do so without falling into the "duplication of existing services" point of critique. The survey revealed that activities designed to improve the interpersonal skill of responsibility training is a consistent need for returning adult students. As a result of the survey, and in an effort to meet the practical needs of students, the staff conducts a seminar entitled, "Developing Responsibility-Skills for the Adult Student." This seminar is organized around skills and methods that maximize student responsibility for academic success and is offered in weekly one-hour sessions for four weeks. The critical aspect of the responsibility-skills planning and coordination is the ability to anticipate areas and periods of greatest student anxiety and frustration, and to develop services and activities that address the causes of these reactions. The responsibility-skills activities are designed to help students define their learning needs and adapt new learning techniques for improving learning strategies.

In order for returning adult students to become responsible for their learning and for them to develop effective and efficient learning strategies, they need to overcome their apprehension toward the college environment and academic life. They need to confront the factors that cause anxiety and frustration. Educational studies show that among the factors causing anxiety and frustration for the returning adult student is the concern about the adjustment to academic life. EACC adult students are anxious about their ability to "keep up" with the younger students, if they can learn as quickly as the younger students. Career realities also demonstrate a disparity between expectations and achievements. Adult students sometimes have dreams from their childhood about the kind of career they want to pursue. The returning adult student may be forced to reevaluate youthful goals and ambitions. An important task for adult students is to come to terms with realistic achievements and grieve the loss of unrealistic expectations (Levin, 1986). Financial pressure can be greatest for the adult student, and responsibility for children and older parents are coupled with a personal need to plan for a secure future.

SUPPORT FOR SEMINAR

As early as 1951, Rogers (1951) urged teachers to return responsibility for choice and change to the learner. A recommendation in the report, Involvement in Learning

(1984), stated that "faculty should make greater use of active modes of teaching and require students to take greater responsibility for their learning." There is now a good deal of research evidence to suggest that the more time and effort students invest in the learning process and the more intensely they engage in their own education, the greater will be their growth and achievement, their satisfaction with their educational experiences, their persistence in college, and the more likely they are to continue learning. Grites (1979) describes the college environment as one in which many new pressures are imposed on the student, especially the demand for increased responsibility. Ellis (1984) states that master students are the ones who are willing to take responsibility for everything in their lives. A major finding of a study conducted by Easton, Barshis, and Ginsberg (1983-84) is that effective students maintain a remarkably high level of responsibility in their academic work. Highly responsible students demonstrate their commitment in a variety of ways: by devoting considerable energy to studying, by participating actively in student organizations, and by interacting frequently with faculty members, student peers, and younger students.

PRESENTATION OF SEMINAR

The seminar for developing responsiblity-skills was first presented in the Fall 1983 semester to 25 students in two developmental skills laboratory classes. The participants were nontraditional students who were in their late 20's, their 30's, 40's, and 50's. The goal of the seminar is to increase the retention rate among returning adult students. In order to increase this rate, certain coping strategies have emerged that seem to ease the back-to-school transition. Ease of transition for individual adults seems to depend upon balancing their deficits with their skills. Programs and activities that prepare students not only for future adjustments, but concentrate upon the immediate needs and problems of the returning adult are emphasized in the seminar as a means of developing responsibility for learning. The responsibility-skills program provides support services to the participants at the points of greatest need--based upon observed patterns of student anxiety--rather than trying to help them adjust to dilemmas and problems which they have not experienced.

The support services staff gives major attention to communication skills, group and individual exercises, demonstrations, and role-playing simulations that emphasize the importance of taking responsibility for learning and for self-reliance in deference to the instructor's authority. Each returning adult student learns to plan, set goals, make decisions, and take responsibility for those decisions. Each student feels that they are respected, that they have something to contribute, and that they can achieve academic success. The participants learn to anticipate and prepare for inevitable changes as they return to the academic environment. They learn that these changes are leading to broader perspectives.

Responsibility-skills are developed in four areas: (1) values clarification; (2) self-knowledge; (3) characteristics of responsible students; and (4) problem-solving and decision-making techniques. All these exercises are done within the group context so that members can help each other realistically explore resources and skills.

Values Clarification. Exercises for this session are designed to help students explore their values concerning education. The exercises provide a means by which the students can make an affirmation on a variety of education value issues. Making a choice strengthens the importance of that value and directs resultant behavior. Throughout the discussion session concerning values, it is stressed that when people repeatedly react to situations which are compatible with their values, consistent patterns are being formed.

Self-knowledge. After the participants have clarified their values toward education and college, they complete exercises designed to induce self-knowledge. The content of the session focuses on learning about individual strengths and weaknesses. The outline in Table 1 is used as the basis for learning about individual strengths and weaknesses in five areas: personality, intelligence, life experiences, interests, and abilities and skills. Students define their strengths in these areas and determine how to capitalize upon them. They also delineate their weaknesses in these areas and how to improve them. The outline shows at a glance which qualities the participants possess that will enhance academic success and which qualities should be developed in order to foster academic achievement.

Characteristics of Self-responsible Students. In the next session, an examination is made concerning the characteristics of self-responsible students. Students who are making significant progress toward self-responsible learn-

TABLE 1

DEVELOPING SELF-KNOWLEDGE

Adults differ in: Personality
Life Experiences
Intelligence
Interests
Abilities/Skills

Differences may be advantages that help you. Other differences may be disadvantages that handicap you. The differences you want to improve are the ones that prevent you from getting along with others or living up to your potentials.

Complete the following chart on your strengths and weaknesses.

	My Good Points	How to Enhance My Good Points	My Weak Points	How to Improve My Weak Points
PERSONALITY				
INTELLIGENCE				
LIFE EXPERIENCES				
INTERESTS				
ABILITIES/ SKILLS				

ing will want to take increased responsibility for their own learning. These students will develop positive attitudes toward achieving a college education. They are self-motivated and rely upon themselves to achieve well in school. Self-responsible students become familiar with and use a variety of learning resources. They realize that there are a variety of institutional resources and student support services that will help them attain academic proficiency and success. Adult students need to become comfortable with using counselors, tutors, and learning resource, computer, and career centers. In addition, self-responsible learners display self-esteem, a regard for individual rights, and a sensitivity to the need to understand how individual and group rights function together.

Problem-solving for Decision-making. The content of the seminar focuses on the immediate problems that adults are experiencing in their college life. The "Problem-solving for Developing Responsibility" exercise in Table 2 is completed in this session. The outline, adapted from a model by Wagner and McKenzie (1980), is an exercise for analyzing and developing problem-solving and decision-making skills that develop responsibility for activating personal change. Participants describe their academic problems in specific, concrete terms. When the problem is described in manageable components, evaluating success is easier to perform. Once adults specifically define their problems, two alternatives, with their performance steps and completion dates are developed. One alternative is selected and evaluated. The skills needed to carry out the alternative are delineated. Participants describe in behavioral terms how they will know that the problem has been solved. After solving the problem, students reward themselves and receive satisfaction from self-reward rather than waiting for praise from outside sources. With this plan, change can be accomplished if the adults are taught to take responsibility and to act upon those things necessary to make change a reality. Participants must use every opportunity to act out the new behavior. The problem-solving action can be used for developing responsibility for academic achievement in every class. A final step in initiating the responsibility necessary for achievement is to continuously evaluate improvement efforts. Monitoring the alternatives or solution for change should focus on positive accomplishments. Participants are taught to feel good about whatever progress they make, no matter how small that progrss may seem.

TABLE 2

PROBLEM-SOLVING FOR DEVELOPING RESPONSIBILITY

A. Problem Description:

B. Alternatives to Solve the Problem:

Alternative 1:

		Completed by
Step 1:	____________________	__________
Step 2:	____________________	__________
Step 3:	____________________	__________

Alternative 2:

Step 1:	____________________	__________
Step 2:	____________________	__________
Step 3:	____________________	__________

C. Chosen Alternative:

The alternative is: _____ specific
_____ measurable and I have set a target date
_____ realistically achievable in terms of my ability

D. Skills Needed to Carry Out the Alternative:

1. ______________________________
2. ______________________________
3. ______________________________

In addition:

_____ I am motivated; it is something I want to do (rather than "should do")
_____ I value the solution
_____ Solving the problem with the chosen alternative will not hurt me or others

E. I will know that I have solved my problem when (define in behavioral terms):

F. I will then reward Myself by:

RESULTS OF SEMINAR

The responsibility-skills seminar is in its fourth year of operation at EACC. Up to this point, evaluation of the seminar has been in the form of student response and student evaluation. From their evaluations, 64 percent of the students stated that the time length of the seminar should be extended. Other responses indicated that: (1) 93 percent of the students felt that the content of the seminar is practical; (2) 90 percent felt that the seminar is worth their time; and (3) 97 percent felt that the exercises are helpful in developing responsibility-skills. The participant evaluations confirm our hopes that the seminar exercises concentrate on the responsibility-skills that are important and beneficial. The evaluation results also reveal that the content areas provide activities that concentrate upon the immediate needs and problems of the returning adult students.

CONCLUSION

The ultimate goal of the Student Support Services Project is to provide services that will increase the persistence and completion rate for students at EACC. From our experience in this seminar, we believe that it is a worthwhile support service for our nontraditional students. Student responses have encouraged the staff to keep the focus on responsibility-skills that meet the immediate and practical needs of the returning adult. Essentially, we are saying to our students the same message conveyed in Involvement in Learning (1984):

> If you are an older student, recognize that you have unique contributions to make to the learning environment. You bring an experience and a quality of mature discernment to collegiate life that can be used creatively in this institution.

We will continue to direct our energies to activities and services that yield practical results to students as they improve their academic achievements and success in college. It is the hope of the Student Support Services Staff that responsibility may breed responsibility and that each successful returning adult student can be an effective part of the responsibility process.

REFERENCES

Betters-Reed, B. (1980). Orientation for the non-traditional commuting student. Unpublished document. American College Personnel Association.

Easton, J.Q., Barshis, D., & Ginsberg, R. (1983-84). "Chicago colleges identify effective teachers, students". Community and Junior College Journal, 26-31.

Ellis, D.B. (1984). Becoming a master student. Rapid City, SD: College Survival, Inc.

Grites, T.J. (1979). "Between high school counselor and college advisor--a void". Personnel and Guidance Journal, 200-204.

Involvement in learning: Realizing the potential of American higher education (1984). Washington, D.C.: Study Group on the Conditions of Excellence in American Higher Education.

Levin, E. (1986, July). A support group for midlife students reentering college. Journal of College Student Personnel.

Rogers, C. (1951). Client-centered therapy. Boston: Houghton-Mifflin Company.

Strickland, N.J. (1985, Fall). "Developing responsibility-skills in high-risk students". Issues in College Learning Centers.

Wagner, C., & McKenzie, R. (1980, November). "Success skills for disadvantaged undergraduates". Journal of College Student Personnel.

PROGRAM ENHANCEMENT THROUGH PUBLICATIONS

John Walter Mey, Central Michigan University

Imagine. Imagine a program with 8,000 students. Imagine a program where there are 30 students in Key West, 200 at Ft. Meade, Maryland, 50 at a medical center on Oahu in Hawaii, 30 who are elementary teachers near Hilo, Hawaii, 35 college instructors who are students in Toronto, and thousands more at numerous locations where classes are offered around the country. Now imagine that there are more than 20,000 alumni of this off-campus program scattered all over the world working in a variety of professions. What would you do to bring them all together and make them feel that they are a part of a university community? How would you let the 20 students on Kwajalein, a tiny island in the middle of the South Pacific, know that the degree on which they are working is helping thousands of people advance their careers?

Now imagine 500 part-time adjunct faculty from more than 100 different colleges and universities who join 150 campus faculty to teach these 8,000 adult students nationwide. Imagine how difficult it must be for faculty from traditional campus-based programs to teach adult career-oriented professionals with different learning styles and different educational needs. How would you make these faculty members feel like they belonged to the program, that what they were doing was worthwhile to their new adult students? How would you help these traditional-based professors adapt to the educational needs of mid-career professionals?

How would you convince a state licensure official, a service education officer or a personnel training director of the value of your program? In what way would you try to keep them abreast of changes in the field of educating adult learners, so that the concepts and principles used in your program are not alien to them?

The answer in part is, of course, publications. Good, thoroughly planned publications can achieve many of the goals previously mentioned. A publications program tailored to the needs of your constituents will in short order enhance your program. It is working for even so diverse an organization as the one you tried to imagine earlier. It is working for Central Michigan University.

This paper will examine how publications play a key role in meeting the diverse needs of administrators of extended degree programs. It will focus in particular on how Central Michigan University is using publications to address the needs of its constituents. It will discuss *The Communicator*, a publication for students and alumni, and *Faculty Update*, a publication for adjunct and campus faculty who teach for the extended degree programs. The paper will discuss ways to identify student, alumni, and faculty needs which can be addressed through publications and will highlight shortcuts and tips from a newsletter editor. These tips include ways to achieve your communication goals, a checklist of printer needs, ways to get information from alumni for your publications, departmentalization, and notes on desktop publishing.

How do publications play a key role?

Publications play a key role in extended degree programs through several major functions. Publications inform, dispel myths, provide an historical context, shape the program's image and create a unity and sense of belonging among program participants. Publications are also used to promote the program to new, potential and existing markets.

Classic examples of publications that inform include the *Bulletin* and the *Course Schedule*. But in addition to these two standard publications, your student, alumni and faculty newsletters can serve a vital role in providing information to your constituents. For one thing, the *Bulletin* and *Course Schedule* do not provide all the information needed by participants in your program. For another, they provide very dry reading material and are intended only as repositories of information. They are not entertaining and are not likely to be widely read. Your newsletters, however, are meant to be conversational, to engage the reader, and can provide topical, timely information on upcoming classes, registration periods, new courses, new programs, and events.

Your newsletters can also be used to disperse myths about your program. Too often extended degree programs are maligned by campus-based traditional educators who see them as somehow endangering the hallowed ivy existence they have cultivated all their lives. To counter this resistance to the many changes in higher education which have come about as a result of the emergence of the adult learner and extended degree programs, you can use your publications to educate the educators. At CMU, for example, we hosted a national conference called *Adult Learners in Higher Education: Planning for Excellence*. After the conference we published a major article highlighting the main points of all the presenters in a subsequent issue of *Faculty Update*, a publication of the extended degree programs which is mailed to all faculty -- traditional on-campus faculty as well as those who teach for the program. You don't have to host a conference to do this. You can publish synopses of new learning techniques and theories. You can ask your own faculty to highlight personal techniques they have developed for classroom use. You can change the attitude of those who resist your program through a consistent educational effort in your publications. Soon they will be questioning their own style of teaching and will be attempting to utilize some of the new techniques themselves.

Your extended degree publications can also provide an historical perspective on the program at your university. It is important that your constituents know the origins of the program, because it gives the program roots and makes it appear more valid and substantial. It further helps to dissipate the myths referenced above, and helps to shape your program's image in the mind of the reader. In *The Communicator* and other publications as well as news releases, we try to include historical points whenever possible.

It is important that your image is consistent with the goals you set for your program. And, as you know, your goals should be consistent with your mission and address your students' needs. Your image should also promote customer satisfaction and trust. That is why it is important that your publications reflect the type of program you represent.

At Central Michigan University about 85% of the 8,000 students in the extended degree program are enrolled in the Master of Science in Administration degree program. The M.S.A. degree is a multi-disciplinary degree. It consists of a core of courses in administration, concentrations in various fields and a capstone course in which the student applies course work to a specific problem in the work place. Typical students are in their mid-thirties, employed at the mid-point of a career, and are seeking a degree for upward mobility or a career change. Our publications are geared in many ways to this audience. They are more subtle in design, use muted colors and the level of language is well above the eighth-grade level of general circulation newspapers. CMU also has an emerging undergraduate program in the Detroit metropolitan area tied to the auto industry. I can see the need for us to develop a publication for this distinct group in the near future, primarily because the current publication does not serve it well due to the needs of the majority of our readers.

We are also interested in promoting the image of Central Michigan University's extended degree program as the "Premier

Extended Degree Program in the United States." Alumni of CMU's extended degree programs now hold positions of ever increasing authority in the public, private and not-for-profit sectors, and account for 20% of Central Michigan University's alumni. Our program is certainly one of the largest, with students attending CMU classes at more than 54 locations in the continental United States, Hawaii, Canada and the Marshall Islands. It also has one of the most innovative off-campus library programs in the world and regularly hosts a national off-campus library services conference every two years. CMU's recent national conference on adults in higher education, which featured 15 nationally recognized presenters from numerous institutions across the country, and its efforts to enhance the educational process further support this claim. We promote this image by consistently publicizing this concept in our publications and making sure that the other material in our newsletters supports it. You can promote your programs and enhance your image in much the same way through your own publications.

A well planned publications effort can serve to promote unity among the various elements in your program. A publication for both students and alumni provides a link between them and the University. The more you interact on an individual basis with your students and alumni, the more they will feel a part of your program. We actively solicit news items from our students and alumni, and when an article is published, the dean, through the magic of word processing, sends each individual a letter congratulating them on their accomplishment. The same concept of publications and unity holds true for faculty members and the institution.

It must be pointed out at this time that although traditional publications at colleges and universities separate student and alumni publications into two distinct entities, the nature of extended degree programs dictate a unique approach. At CMU we have consciously combined our off-campus student newsletter with our off-campus alumni news in a publication called *The Communicator.* I firmly believe that it is wrong, passé, and counterproductive to embrace the notion that a publication which features alumni is *only* for alumni. The trend today toward a learning society forces one into a situation where publications must fit that society in order to serve its elements well.

Your alumni today may well be the students of the future. As K. Patricia Cross, a leading scholar on adult learning from Harvard, said at a recent CMU conference, "Learning has become a lifetime necessity for almost everyone." Cross focused on the emerging learning society and how a life plan which blends education, work and leisure throughout one's years is rapidly becoming the norm. As a result we must find ways to keep our alumni abreast of changes in our extended degree programs.

Alumni also need to know how other alumni are doing, if only to see different applications of the degree they earned. This makes them aware of possible new career options open to them. It also reinforces their awareness of the value of their degree. They need to know where the program is going, who it is serving, and -- if they donate to the University -- where their money is going. They also need to feel a part of the institution and that the school cares for them and cares about their success.

Your current students need to know how others apply their course knowledge and how the degree on which they are working serves alumni. This is especially true for the so-called non-traditional adult learner. Because adult students often attend college part-time they take longer to earn a degree. Because it takes them longer, they need inspiration from others who have already completed the degree to sustain them in their studies. In addition, adult part-time students often are not able to establish the types of closely knit peer support networks that traditional campus-based students have. As students and alumni, they do not have as close a tie to the University as their more traditional counterparts.

A publication created for and including both students and alumni is essential to bonding this diverse student body into a cohesive group. It helps make them aware of their role in the University structure, and the importance of the University to them and their colleagues. Using alumni features in your publication can bring hundreds more students to your door as it simultaneously encourages those enrolled to continue their studies and graduate. Students need the inspiration that alumni provide, and alumni must remain a part of the changing academic community in order to move forward in a learning society.

A student/alumni publication should also be mailed to faculty. Faculty need to become more aware of how their students utilize the course material. They need to know when someone makes successful practical applications. It inspires faculty who teach for the extended degree program to do their best. It lets campus faculty know how successful their colleagues are when they teach adults. It can show how an extended degree program is as sound academically as a traditional program, and maybe even better -- although you won't hear that from a traditionally based professor!

Finally, publications can be used as marketing tools by your staff. Prospective students frequently ask how a CMU degree can help them. By pointing out the number of diverse occupations in the "News Notes" section of the student/alumni publication -- a section which *describes* the individual's job instead of just giving a name, degree and job title -- the CMU representative can easily illustrate how others have applied their knowledge. In a like manner, your publications can put your programs in an excellent light when you talk to potential sponsors, licensure officials, and potential faculty.

Ways to Identify needs of students, alumni and faculty

A. Surveys:

Surveys are often touted as the ultimate solution to all your needs. Indeed, they can give you a general idea of your problems and the concerns of your readers, and they can show trends in your student population. However, we all must be wary of relying too much on survey data, as it can be misleading and steer us away from potential markets and student needs.

People who are surveyed generally accept the status quo. If you have a regular newsletter that is published bi-monthly, for example, and you ask how many times a year it should be published, the response will be overwhelmingly in favor of a bi-monthly publication. That is precisely what happened to us at CMU when we surveyed our readers. However, it was interesting to note that when we separated alumni from the student responses, alumni were about evenly split between a bi-monthly and a quarterly publication schedule, indicative, perhaps, of a less urgent need for up-to-date information about the program.

Surveys can also be misleading because of the sample of the population they represent. I recently had the pleasure of interviewing Pat Cross. She was quick to point out the fallacy of survey data on adults in higher education. She said that one of the difficulties in analysis of the data was in that the National Center for Educational Statistics had to change their style of getting statistics and you couldn't always compare the results. For these reasons, we should be very careful when we implement changes based on a survey, and should probably follow the survey with other methods of analysis before we react.

B. Isolate the problems:

A better way to identify readership concerns is to look where students, staff and faculty are having problems. At CMU, for example, many students were uneasy about a core course in the curriculum, and would wait until the end of the program to take the course, even though it would be more beneficial for them to take it early in their studies. The course, MSA 640: Quantitative Applications in Administrative Decision Making, is designed to show students statistical and quantitative techniques and to help them apply these to their own situations. In order to allay student fear of the course, I interviewed an instructor and the department chairperson and reported their comments in an article under the tongue-in-cheek headline: "Yea, though I walk through the valley in fear of the Quantitative Student-Crunching Stat Monster ..." This article seemed to have the desired effect, and several students and alumni commented on how important such articles are to them personally.

Other problems which surface involve ignorance of the university processes. Off-campus students often do not develop a clear sense of the steps and deadlines required at various stages of their program. Although these have been discussed by an academic advisor or CMU representative at various points in their studies, these students, because of their distance from the university setting, need reminders along the way. At Central, we regularly announce graduation application deadlines in *The Communicator*, and also run short articles on topics dealing with commencement procedures, registration procedures for on-campus summer courses, application for scholarships, and other miscellaneous topics. Your publications can help reduce the number of process-oriented problems you encounter.

Sometimes you might perceive a lack of commitment on part of students, faculty or staff for a particular part of your extended degree program. This may be due to a misunderstanding of your goals or mission. It may also be due to the perception of a lack of positive results. You can use publications to turn this attitude around. If you find that ignorance of the goals or mission is the primary problem, publish them and put them in the best light possible. If there are successful students in the program who have applied it to their lives, report this in your publication.

On our campus we have had to continually battle the attitude that an extended degree was somehow inferior to an on-campus degree. That is one of the reasons we only offer degree programs off campus that are also offered on campus. Even so, we still had to deal with comments that our extended degrees were somehow inferior to the M.B.A. To counter this we always point out that the M.S.A. is not the same as an M.B.A., that it is a broader degree designed to allow students to apply administrative knowledge to a broad spectrum of fields. In recent years we have also published numerous success stories on our graduates. Now we rarely get such comments, and when we do get them they only come from sources eager to promote an M.B.A. program.

Reports of student successes and application of course work to their jobs solidifies the bond between a corporate or governmental sponsor and your degree program. It gives your administrative staff a tool to use in selling the program to other sponsors. It makes the sponsors you have look good to their superiors. It helps sponsors promote their employee education program by giving them examples to cite to other potential students. At CMU we also interview Education Service Officers and others about their employee education programs and publish these articles to help intensify the bond between the University and the sponsor.

C. Complaints to staff members:

Staff members can be an invaluable source of subject matter for your publication. Students and faculty will often discuss difficulties they are having with your field staff, and research into their problems and suggested or implemented changes make lively reading and show how your department is responding to student and faculty needs. Sometimes even the discussion at a staff meeting can be of interest to your reader, and you should always consider running such stories.

In *The Communicator* we ran such an article in our June issue. The article discussed such things as staff development, needed improvements in communication between campus and field staff, office hours more convenient to working students, better recognition for excellence in capstone course projects, and other issues revolving around responsiveness to student needs. Being frank about your concerns and suggested changes can be useful, in terms of generating discussion and new ideas and in terms of preparing your students and staff for change.

Shortcuts and tips that can help you

A. Ways to acheive your communication goals:

Your publications need to be credible, reliable, and need to have good design. To accomplish this I have four suggestions for success:

1. Hire an editor and writer who is skilled in journalism *and* graphic design. You need someone experienced in dealing with the technical aspects of printing. You need someone who can write clearly, plainly and simply, to get your message across. You need someone who can design the material to make it easy for people to read.

2. Provide the editor and writer with sufficient help to gather information on alumni, instructors, students, staff and the program itself. If you have a small program, the editor can probably handle most of your printing needs. But you should always remember that the process of designing and writing take a great deal of time, which takes us to suggestion number three.

3. Buy a desktop publishing system to save time and money. Recent advances in desktop publishing make it a very attractive way for you to save time and money as you upgrade your publications. I will discuss this in more detail in a section called notes on desktop publishing.

4. Provide adequate funds for printing and distribution. Depending on the function and need of each piece, your editor can help you determine the approximate amount to budget.

B. Ways to obtain information from alumni:

1. One of the initial problems facing me as the new editor for CMU's extended degree programs in 1983 was a virtual void of information about our off-campus alumni. Sure, we had some scant information about a graduate here and there who made it big, but we had no idea how the majority of our alumni were faring.

In order to solve this problem, we took a look at ways in which we could quickly find alumni most likely to have made a recent job transition. It became apparent that those who had moved to a new city would be the most likely to have a new job. To get a list of these alumni, all we had to do was request an address correction on our publication and separate the ones who moved to a new town.

Once the alumni had been selected, a concise, efficient way to gather accurate information was needed. We developed a form which asks alumni for information required for every news note, such as name, which CMU location they attended, when they graduated, the degree received, their job title, employer, work telephone and home phone number. This information was positioned on the form in an order that facilitated the writing of a news note for our paper. We also asked for their student ID number so that we could look up the information on our computer to verify it as quickly as possible. The balance of the form asked them to describe their new job and how CMU may have contributed to their success. This last request can bring in some very nice quotes praising your program. The form also asks for a signature to release the information for publication.

Everyone knows that we tend to file all surveys we receive in the waste basket, so next came the task of making it worthwhile to fill out the form. PR people have used all kinds of gimmicks -- postage stamps, pennies, dollar bills (to make you feel real guilty if you don't send it in), and sweepstakes entries -- to name just a few. Somehow when I get these in the mail I tend to ignore them because of the overkill. With an alumni achievement report, however, you can offer them fame! Due to recent technological advances in word processing, you now have time to write them each a personal letter. In this letter you can tell them that you can help them notify their former classmates about their accomplishments. You can brag about your circulation and let them know how many people will read about them. And last, but perhaps most important, you can tell them how much of a service they provide you by filling out this form so that you can update your records. (You can skip the part about the development fund at this point!) Naturally, you will want to include a business reply envelope so that the form returns directly to you and doesn't get into the hands of the student newspaper or the regular alumni publication.

At Central Michigan University we have an excellent response rate and receive between 40 and 60 alumni achievement report forms each issue. From these we select the most interesting and assign them to someone who will conduct a telephone interview and write a feature story and news releases. The rest are converted into news notes which are printed at the end of each issue.

2. Ask staff members to give you information about recent graduates who received promotions. If you have site-based

programs away from the main campus, your representatives located there often become well acquainted with their students. Many times they hear about the accomplishments of alumni and can provide you with the information you need for a news note or feature story. Ask your staff for these news tips. Have them check local newspapers for stories about graduates to feed back to you. They like to have their students featured, because it makes their off-campus location look good.

3. Encourage alumni to write to the editor in each and every publication. Include an address correction form in your paper which also asks whether a news note is attached. This brings in an occasional news item and also helps you update your mailing list.

C. Checklist of Printer Needs:

> *"For every job there is a due date,*
> *and a job for every purpose under heaven."*
> *-- anonymous printer*

There are certain things every printer will ask you when you take them a job. It always saves time and prevents confusion if you have made a list of these items ahead of time. They should always be spelled out on your requisition or printing order so that the printer can't come to you later when he or she makes a mistake and say, "You didn't tell me *that* !"

Every printer must know the following:

1. *The name of the job.* It may seem simplistic, but call it something and always refer to the job by that name. It will ensure that you are talking about the same job, especially if you have more than one order at the print shop.

2. *Quantity.* Know how many you need from the start. Make sure you look at the job from all angles and examine all the uses you will have for it. There is nothing more frustrating or difficult to explain than having your job come back at double the estimated cost -- all because you had to increase the quantity.

3. *Size of the job.* This means the finished size (measurements after it is trimmed and folded). If you have multiple parts to your job -- such as folded invitations, a reply card, and envelopes --

make sure you list each item and its size separately.

4. *Type of paper.* Printers are not mind readers. Make sure they understand exactly what type of paper you want and indicate it on your order. Paper comes in different weights or thicknesses, make sure you indicate the paper weight (ex: 65# cover, 70# text, bond, or index) on your requisition. Make sure you also list the paper finish. Papers come in a variety of finishes or textures, including linen, smooth, felt, laid, and coated. Your printer can help you select an appropriate weight and finish. Again, if the paper is different for each part of a job, list it when you are explaining that part of the job.

5. *Paper color.* Always select a paper color, and go over it with the printer so that you are sure it is correct. Paper companies have become pros at the art of euphemism, and off-white could be anything from soft white to beige, cream or tan. List the appropriate color on your order form. That way the printer will call you before making a substitution.

6. *Ink color.* Ask your printer for a color chart from the company where they obtain their inks. You will be impressed by the number of colors from which you can choose. Always list these colors by the way they are indicated on the color chart so the printer will know exactly how to mix them at the press. If you are using colored ink on colored paper, be sure to ask your printer whether it will look the same as it does in the chart. If not, the printer can help you select a color that will come close.

7. *Number of pages.* You would be surprised how easy it is to forget to list the number of pages in a publication. Make sure you count the title page, blank pages, table of contents, and index along with the text. If you have a separate cover out of a heavier paper stock, be sure to indicate it separately and not include it in the number of pages. Always consult your printer if you are unsure as to how many pages you will need. The printer will sometimes add one or two blank pages, because of the way the press positions the paper, in order to save you money.

8. *Typesetting instructions.* If typesetting is required for your job, say so on the requisition.

List any special instructions directly on your rough copy in red ink so that the typesetter can follow them.

9. *Page Proofs.* If you do not provide camera-ready copy, you should request a page proof, which is usually a photocopy of the pasted-up camera-ready copy. Carefully proofread this, as it indicates how your finished product will look.

10. *Brownlines or bluelines.* If you are using more than one color or if you are using halftones (photographs), be sure to ask for a brownline. A brownline is produced by exposing light-sensitive paper to light through the actual negative used to produce the printing plates. The camera technician will expose the brownline to all of the negatives used for the different colors of ink. Usually anything that is to be printed in a colored ink is screened on the brownline so that you can readily see that the printer will follow your instructions. You should check all brownlines carefully to make sure that everything appears where it should, and that there are no breaks in the lettering, lines or photographs, as these will print exactly as you see them on the brownline.

11. *Special instructions.* If you want your job folded a certain way, if special cutting is required, or if you want certain sections glued or stapled, make sure you indicate this on the requisition.

12. *Mailing & shipping instructions.* You are liable to find yourself sitting under large skids of printing in your office if you fail to tell the printer where to ship it! Make sure you provide any mailing labels and shipping labels and a detailed shipping list with your order.

13. *Due date.* Make sure you list the date the publication is due and discuss this with the printer. Printer schedules are extremely hectic and leave little room for adjustment. So the best assurance of getting your job on time is to make sure that the printer is aware of your deadlines from the start.

Keep in mind that standard printing contracts usually provide for a 10% overrun or 10% under printing, and they will charge accordingly. Overruns are common and to be expected. Generally, a printer will not print less than you specified in your order, however it can happen. Of more than 1,000 printing jobs I have ordered during the last couple years, I can only recall one time that a printer did not come through with the quantity I ordered, and that was due to a paper shortage at the mill.

D. Desktop Publishing:

Recent advances in desktop publishing make it a very attractive way to save your department time and money as you upgrade your publications. Desktop publishing is the process of creating camera-ready copy for the printer on a personal computer. With desktop publishing you have complete control over the preparation and correction of text, selection of type, and design of the page.

Typesetting through a typesetting service or printer generally runs between $25 and $35 per page. You can save this money by typesetting the pages yourself with a desktop publishing system. Desktop publishing also saves hours of preparation time. No longer will someone have to cut and paste together a publication manually. No longer will you be subject to delays which can stretch to several days in length as you wait for copy to come back from the printer to proofread. Desktop publishing does it for you on the screen and you print out the completed page. Because of this control, you or your staff are free to make creative changes quickly at a very modest cost.

The disadvantages of desktop publishing include the fact that photographs cannot be digitized accurately enough for publication. The traditional halftone process must still be employed to gain the best results. Generally, a compromise is struck whereby the text and page are layed out electronically through desktop publishing and the printer takes care of burning the halftones in the proper position on the printing plate. Another disadvantage is that the resolution of desktop publishing is not as high as that of typesetting. Laserwriters are capable of printing 300 dots per inch. Typesetting equipment has a resolution of about 1,200 dots per inch. A final disadvantage is that the industry is not standardized and once you select a line of products and software, you cannot easily switch to another product. Advances in desktop publishing are coming so quickly that six month's after you purchase your system you can find yourself at the point where you need to upgrade it. To compensate for this disadvantage, most software companies offer registered users free or low-cost upgrades when advances and enhancements are available. Despite these disadvantages, desktop publishing is so cost effective and time saving that it is becoming widely used.

At CMU, we have used desktop publishing for two years in the extended degree program. It is also used in Central Michigan's Media Relations Department. In our office we have three MacPlus computers and an Apple Laserwriter. We use MacWrite for our word processing and Aldus PageMaker software for our desktop publishing. The *Faculty Update* is an example of our desktop publishing. Aldus PageMaker has also recently developed a desktop publishing package for the IBM PC which is compatible with Apple MacPlus systems. Since we also have an IBM in our office, we may be looking into this software as well.

We use desktop publishing for the production of hundreds of flyers, advertisements, newsletters and course schedules each year. Since we are in more than 50 locations, control over the actual page setup is very beneficial to us. With the touch of a few keys we can individualize a flyer for any of our centers. When you figure that the cost of typesetting would be at least $15 per page through our in-plant print shop at the University Press or $25 - $30 per page at a commercial shop, we have saved literally thousands of dollars over the past two years over and above what we have paid for our equipment and software. (The MacPlus and external disk drive cost the University approximately $2,100; the Laserwriter runs about $4,000; and the Aldus PageMaker software costs about $500.)

E. Departmentalization of Publications:

We have become a nation of scanners and zappers. This is the result of the information age and the learning society. Because there is such an overload of information, higher education must alter its traditional information-laden lecture format to prepare students for the process of selectivity and induction. In a like manner, we must produce publications which are tailored for the information-weary reader. That is why we subdivide a publication into categories that group together stories that contain similar information. We call this process *departmentalization*.

Magazines have employed this technique for many years. Just a glance at *Time* or *Newsweek* will show you in no uncertain terms how it works. Readers can go to their favorite column or news section easily and quickly. They can scan it and read what they choose.

The process of departmentalization can also be a very valuable tool for the editor. It helps ensure that major topics are not overlooked. It maintains a sense of balance in the publication. It also ensures some continuity of design.

In CMU's publications, we adopted a departmentalized style last summer. It has worked well for us, bringing continuity and balance to our publications despite the constant state of change which characterizes our extended degree programs. In *The Communicator,* for example, we have a section of "Program News" followed by "Alumni News & Features," and "Alumni News Notes." In *Faculty Update* we have a column from the faculty development consultant and a column entitled "What's New Under the Core, " a listing of new publications pertaining to various courses in the core curriculum of the Master of Science in Administration degree.

We have also found the departmentalization technique useful as we redesigned our publications. Department headings tend to anchor the page, providing a focal point from which the text can flow, making the page visually attractive, while at the same time making it easier to read by guiding the eye of the reader into a topic of interest. When selecting your department headings, make sure they are groupings in which your readers or a portion of your readership had an interest.

Conclusion: Planned publications can enhance your program

A publications program tailored to the needs of your constituents can enhance the image of your extended degree program. Publications can be used to inform, dispel myths, provide an historical context, shape your image, and create a sense of unity and belonging among students, alumni, faculty, and sponsors. Indeed, a publication created for and including both students and alumni is essential to bonding the diverse public served by an extended degree program. Publications can also be used to market your programs to potential students, faculty and sponsors.

Through surveys you can gain a general feel for the problems and concerns of your constituent groups, and can identify student trends. But it is by listening to complaints made to staff members and isolating problems in your organization that you become aware of issues your publications can address. Staff members and faculty can be an invaluable source of information for your publications. You can also obtain information from alumni. Always encourage alumni to write you about their successes and ways they have utilized course work. You can identify which alumni may have new jobs or promotions through address corrections from the Postal Service.

Printing is a very complex process. To avoid problems, it is a good idea to use a checklist and include the following information on each printing requisition or order: name of the job, quantity, size, paper type, paper color, ink color, number of pages, typesetting instructions, whether you want a page proof or brownline,special instructions, mailing and shipping instructions, and the due date. Remember that 10% overruns are a generally accepted printing practice and that the printer can charge you for them.

I have outlined four suggestions for success in meeting your communications goals: 1) hire an editor and writer skilled in journalism and graphic design, 2) provide the editor with sufficient help, 3) provide adequate funds for printing and distribution, and 4) buy a desktop publishing system. In order to accomodate the reader, it is a good idea to departmentalize your publications by grouping stories of similar content together. This also helps you maintain a balance in your publication and makes it easier to design.

By following these suggestions, I believe you can make your publications work for you. Publications have worked for CMU, and I am confident that you can utilize them to enhance your extended degree programs as well.

SUGGESTED READING

Arden, K. J. and Whalen, W. J. Effective Publications for Colleges and Universities. Alexandria, Va: CASE publications, 1978.

Brigham, N. How to do Leaflets, Newsletters and Newspapers. Boston: PEP Publishers, 1982.

Craig, J. Production for the Graphic Designer. New York: Watson-Guptill Publications, 1974.

Cutlip, S. and Allen, C. Effective Public Relations. Prentice-Hall, Inc., 1971.

Desktop Publishing, Bove & Rhodes' Inside Report. San Francisco: PCW Communications, Inc., 1987.

French, C. W., Powell, A.P., and Angione, H., ed. The Associated Press Stylebook. New York: The Associated Press, 1985.

Pickens, J. E. The Copy-to-Press Handbook: Preparing Words and Art for Print. New York: John Wiley & Sons, 1985.

Topor, R. S. Marketing Higher Education: A Practical Guide. Alexandria, Va: CASE Publications, 1983.

Weiner, R. Professional's Guide to Public Relations Services. New York: Public Relations Publishing Co., Inc., 1985.

AFFECTING RETENTION OF THE INDEPENDENT LEARNER

Jan-Marie A. Spanard
Academic Officer for Business Degrees
The University of the State of New York
Regents College Degrees
Albany, New York

I. Introduction

Currently accepted theories of retention and attrition in higher education focus on the student's environment, the institutional organization and structures, and the sociological impact of integrating into a new type of community.

Two of the characteristics of independent learners complicate these categorical variables. First, students in nontraditional, i.e. non-residential, non-classroom, fully independent educational programs, lie outside of the constraints of studies on college environments. Second, as noted by Eckland (1964,p.60), "leaving college (voluntarily or involuntarily) does not always constitute a termination of the students' formal education. It may only mean a temporary interruption..." Most subjects of this project, though now matriculated as nontraditional program students, were once "dropouts," a characteristic not addressed in any research known to date.

II. Measurement of Retention

There is more than one type of student retention in postsecondary education. And there are many more ways than one to measure it. Lenning, Sauer and Beal (1980, 6-10) identify the following three types of student persistence, of retention.

1. Program completion as retention. This is the most traditional means of assessing retention. It assumes that the student's end goal is program completion. Six separate definitions subclassify program completion:

   a) Graduating in the time designated for the degrees or certificates offered,

   b) Graduating after the time designated for the degrees or certificate offered,

   c) Graduating at the institution of initial entry,

   d) Graduating from an institution other than the one in which initially enrolled,

e) Graduating in the curriculum program initially entered,

f) Graduating in a curricular program other than the one in which initially entered.

The first two definitions or measurements of retention, a and b, focus on time; c and d focus on institution; and e and f are calculated according to specific program completion.

The inadequacy of these definitions for retention of the independent learner is immediately apparent. First of all, many external degree programs place no time limit on the student's completion. While a total number of credit hours is usually required, a time frame in which to complete those credits is usually not stipulated. Second, many independent learners, if not most, combine credits from various institutions in completing their degrees including, but not exclusively, 2- and 4-year college courses, correspondence courses, proficiency examinations, and ACE PONSI evaluated non-collegiate study such as military and corporate training. Clearly, measures of retention defined by time or institution are not useful for this population.

Third, measurement according to program completion is also inadequate. Most nontraditional students, including independent learners, have college credit from two or more institutions, let alone programs, are frequently non-matriculated part-time students and often begin in one program, stop-out and then return many years later to entirely different degree program.

2. Course or term completion as retention. The second definition of student persistence identified by Lenning, Sauer and Beal is of shorter term than program or degree completion. This definition requires measurement by the academic year or even by the semester.

> Students who drop out after completing terms or individual courses frequently do so for positive reasons, such as accepting a job after acquiring needed skills through their coursework. Moreover, these students are more likely to return to college at some later time. However, students who drop out during a term often have a more basic disenchantment with postsecondary education. For these students particularly, the "course or term completion" measure of retention probably is more pertinent than the "program completion" measure, especially where the collection and study

> of withdrawaland retention statistics is for the purpose of improving problem related retention. (p.9)

Definition by course or term completion is a more appropriate definition of retention for independent learners. Most nontraditional learners are part-time students who have clear goals, are serious in their work, are employed full-time, and balance their studies on top of career and family obligations (*Change*, 1986, 49-53). These students are more likely to compile degree requirements in units, often unable to study for months or years at a time.

3. *Personal goal attainment as retention*. This third category is, again, more appropriate in the measurement of independent learner retention than that of degree or certificate completion. Examples cited by Lenning, Sauer and Beal are: a) developing a skill, b) preparing for a skill- or training-based job, or c) finding a spouse. Students enter postsecondary education for a variety of reasons, including these.

This particular measure of retention brings to light the fact that withdrawal,permanent or temporary, is not always a negative event (Nickens, 1976):

> Some students need to transfer, stop out, or drop-out for their own benefit, and an approach that could somehow force them to stay would be inappropriate, in spite of the detrimental financial implications of decreased enrollment. Hagan (1977) cites numerous cases where it was beneficial for a student to leave. Even "upward bound" programs have recognized this: "the student who leaves school in order to think things through or to weigh whether or not he really wants a college education is making an attempt at mature decision-making" (Princeton Cooperative School Program 1977, p.9). (p.16)

True of independent learners and many community college students, the connection between student goals and the students' attainment of those goals is probably the more accurate definition of student persistence. This is not to be confused with institutional retention, the number of enrolled students who remain at a single institution without stopping out or transferring, because these two perspectives on retention, student and institutional, are frequently incompatible.

III. Student: Institutional Interaction

> ...The student interacts with the institution, perceiving objective measures such as grade point average or belonging to campus organizations, as well as subjective measures such as the practical value of the education and the quality of the institution. These variables are expected to influence the degree to which the student is satisfied with the institution of higher education. The level of satisfaction is expected to increase the level of institutional commitment. (Bean, 1980, 158-160)

Several studies have supported the belief that the quality of student services can affect student persistence. These include advising, orientation, and providing information about further learning resources and options. Student services involve interaction. It may be student-student involvement and activities (Astin, 1975), student-faculty interaction (Pascarella and Terenzini, 1980), or student-administrative/advising/institutional interaction (Lenning, Beal and Sauer, 1980).

One of the most frequently voiced student complaints in adult external degree programs is insufficient student-faculty contact, student-student contact, and student-advisor contact. Pascarella (1980, 546) tells us that "student behaviors, attitudes and educational outcomes are influenced not only by the institution's structural factors, but also through interactions with the important agents of socialization (peers, faculty, administration)." A lack of support, community and guidance is associated with student attrition.

IV. Regents College Degrees

When the New York State Board of Regents established the Regents External Degree Program (now Regents College Degrees) in 1970, it recognized the needs of a growing number of adult students for a flexible and accessible college program. The Regents hoped to eliminate any artificial barriers such as distance or schedule conflicts that might prevent adults from earning a degree. The degree they created is truly "external"; it is awarded by a university which evaluates the work of a student it has not taught directly.

The faculty of Regents College Degrees is drawn from many colleges and universities, mostly in New York State, and from certain relevant industries. The faculty has responsibility for setting and monitoring academic policies and standards: faculty committees establish degree requirements, determine the ways in which credit can be earned, develop the content for all examinations, review the records of students to verify their degree completion, and recommend conferral to the Regents.

The day-to-day administration of Regents College Degrees is carried on by the professional staff in Albany. The staff includes program advisors, transcript evaluators, academic officers, and those with specialized functions like public relations, business/industry liaison, military liaison, alumni director, Volunteer Advisor Network liaison and others.

Only about thirty percent of Regents College Degrees students live in New York. The remaining seventy percent live in the 49 remaining states and other countries. Almost all students live outside the city of Albany. The students' interaction with the college takes place on the telephone and in the mail.

The academic advisors and transcript evaluators are primarily responsible for student infomation and communications. Evaluators review students' transcripts to classify past learning and combine it on one University of the State of New York Regents College Degrees transcript. The advisors answer written and telephoned questions about degree programs for the students' current and future use. If a student does not write or call with a question or request for information, then he or she will not have any interaction with the program advisors.

V. The Planned Intervention Project Design

The Planned Intervention Project (PIP) was initiated in September of 1985 to test several concepts:

1) The concept of planned intervention. What happens when contacts with students are initiated by the advisor instead of the student, as they are in most of the current systems? Will the student receive and/or perceive increased support and guidance?

2) The discovery of crucial intervention points. Are there certain moments in a student's career when intervention by an advisor makes a critical difference? Are some moments more crucial than others?

3) The case load advisor concept. What are the

relative merits and disadvantages of this system? Will the student receive and/or perceive increased support and guidance? Will the individual, one-on-one attention and advocacy increase the feeling of community and decrease the sense of isolation?

Measurement of success of the project includes: a) rate of degree completion, b) rate of program completion, c) level of student participation in the form of inquiries and work progress, and d) degree of satisfaction with the program materials and advising. In the PIP project's second phase, scheduled to begin July 1987, a fifth criterion, e) satisfaction with personal degree progress and learning, will be measured as well.

Methodology

The population under study is comprised of students enrolling in the Regents College bachelor of science in business program as of 1 September 1985. Students having surnames beginning with alphabet letters A - L received special advisor-initiated intervention (the experimental group). Those students with surnames starting with alphabet letters M - Z received no special advising services beyond what any student would normally receive (the control group).

The planned intervention has consisted of periodic personal letters from each advisor to his/her case load of students at preset intervals and occasions. These include an immediate welcome letter, a six month review of student records and activities letter, and an eleven month personal advisement letter. Following a review of the first three months of available data, a more frequent communication schedule has been proposed. This revised intervention sequence will include a student evaluation survey, a biannual newsletter-like communication which provides a forum for student-generated news and comments, and recognition of outstanding student progress and accomplishments.

Findings

Because enrollment is measured and achieved annually at Regents College Degrees, we can identify students who have withdrawn or remained in the program 12 months after their enrollment. Adding to those twelve months a 60-day grace period for late enrollment fees, we can only measure retention 14 months after initial enrollment. This means that September 1985 data could first be evaluated in November 1986. To date we have only been able to gather the initial five months of student enrollment and retention data. And it has been most rewarding data, indeed.

Enrollment status records of students who enrolled in the Regents College business degree at the baccalaureate level in the months of September 1985 through January 1986 were reviewed. Three options were present: 1) the student would still be actively enrolled in the program, 2) the student would have withdrawn from the program (or possibly transferred into another Regents College program), or 3) the student may have graduated, completing the degree. The status of A - L (treatment group) students was compared with the status of the M - Z (control group) students. In this way we were able to study the differences effected by the advising treatment.

It is important to note in a project such as this that the confounding factors are many. Most obviously, we were not able because of the prohibitive costs to use a random sampling method of selection month after month as the study progressed. While we are unaware of any known factors that would render the alphabetical selection of this population (national sample of adult independent learners), we do acknowledge that pure random sampling would have been academically preferable. Second, there are many student characteristic differences that could not be controlled. We were not able, under any sampling method, to identify such persistence factors as individual motivation and desire to continue. It is also important to note that our students, as with most independent learners, have transferred to and from different institutions in the past and may easily continue their education while not enrolled at Regents College.

A further word on participation and learning is in order here. Because Regents College Degrees offers no instruction per se but rather offers a degree-granting structure and the accompanying advising and guidance to achieve degree completion, being enrolled at Regents College Degrees does not necessarily mean that a student is studying for an examination or taking coursework either in the classroom or through correspondence. It is also true that a student may enroll for one year at Regents College, determine what his or her requirements will be for the next two-or three-year period, withdraw for the second and third years, so as to save on enrollment fees, and then reenroll in the fourth year in order to graduate. And in the final scenario, a student may be studying before enrolling. And so, again, the correlation between being enrolled and actually studying and learning is not a perfect correlation.

Given these realities in studying the retention and attrition of adult independent learners, our intent was to increase the percentage of graduating and active students while decreasing the percentage of those who became inactive. This did occur.

Table 1 summarized the preliminary findings of this project. There were a total of 406 students who enrolled during the five-month period for which data was available. One hundred and ninety-one of those students were in the A-L treatment group; two hundred and fifteen were in the M-Z control group. In order to compensate for the difference in absolute numbers, all data has been converted into precentages so that it is immediately comparable.

TABLE 1. PRELIMINARY DATA SUMMARY - PIP

	Student Status		
	Active	Inactive	Graduated
A - L mean	36.4%	52.8%	10.8%
SD	6.4%	2.1%	5.9%
M - Z mean	28.0%	63.8%	8.2%
SD	7.3%	9.8%	4.3%
t-value	1.73	2.19	0.71
degrees of freedom	8	8	8
probability	88%	93%	50%

VI. Conclusions

It may be inferred that, with 88% certainty, the difference between the A-L group and the M-Z group students' decisions to remain actively enrolled was resultant of the advising treatment. In some cases, accounting for the 12% uncertainty may be the result of individual student motivation or an as yet unknown characteristic of the project and/or student population.

With fully 93% certainty, the difference between the A-L group and the M-Z group students' decision not to withdraw and become inactive may be attributed to the advising initiated in the PIP project. This is quite significant. The largest impact of the advising activity was to decrease attrition in those students who benefited from the increased information and personal correspondence.

The least significant figure is in the percentage of students who would continue on to graduate. Statistically, there appears to be very little correlation between advising and graduation. This may be misleading however. The average Regents College graduate takes three years to complete requirements and graduate. This sample represents a one-year period only. More relevant data will emerge as this project continues and students can be followed for a period of years. This future student data will also provide information on the percentage of withdrawals that occur after the second year of enrollment. Theoretically, adult student retention, as does traditional student retention, experiences the highest losses after the first year of a program. We hope to find that this is true for the Regents College Degrees student as well.

This is a pioneer effort in the study and effect of retention and attrition principles applied to the independent learner. Our retention has increased significantly, our attrition has decreased at an even greater rate. The Planned Intervention Project has been determined to be quite successful and will be continued and modified as we learn more about independent learners and their needs. Both the project and the study of its results will be continued and eventually generalized to the entire Regents College Degrees student population of 15,000 students.

REFERENCES

Astin, Alexander W. Preventing Students from Dropping Out. San Francisco: Jossey-Bassy, 1975.

Eckland, Bruce K. "A Source of Error in College Attrition Studies." Sociology of Education, 38 (Fall 1964):

Haagan, C. Hess. Venturing Beyond the Campus: Students Who Leave College. Middletown, Connecticut: Wesleyan University Press, 1977.

Lenning, Oscar T., Sauer, Ken, and Beal, Philip E. Student Retention Strategies. AAHE-ERIC/Higher Education Research Report No. 8, 1980.

Pascarella, Ernest T. and Terenzini, Patrick T. "Predicting Freshman Persistence and Voluntary Dropout Decisions From a Theoretical Model," Journal of Higher Education, 51 (1980): 60-75.

ADULT DEGREE PROGRAM ADVISEMENT

Ulestine Watson

Northeastern Illinois University

Advisement for adults lacks a "clear-cut role distinction" for persons performing advisement tasks (Grabowski, 1976, p.226). Seppanen agrees that advisement "suffers from a lack of clarity" (1981, p.3886). In adult degree programs (ADP), a problem exists in defining the role of the adviser because the role has not been conceptualized.

Literature on advisement, degree programs designed especially for adults, and counseling the adult student , provided a basis to conceptualize ADP advisement tasks. Literature on the traditional approach to advisement in higher education was not applicable to ADPs because this approach was limited to a prescribed curriculum, exclusion of the student from the design and implementation of the curriculum, lack of emphasis on learning gained outside the classroom, and did not recognize learning through experience during program participation.

Decker, Redhorse, and Lucas' (1978) advisement model, which focuses on the collaborative mode between the student and the adviser, served as a means to understand advisers within ADPs. Their objectives of advisement can serve as a framework to understand the role of the adviser in ADPs. The objectives of this model are to help the student have an overview of the college, "to integrate his/her learning, to help the student to identify his/her learning needs and interests...to develop his/her learning objectives, to plan the student's educational program, to help students identify and deal with personal attitudes or concerns which obstruct learning, to prepare an overall or summative evaluation of the student's performance, and to assess the strengths and limitations of the educational experiences" (Decker, Redhorse, and Lucas, 1978, pp.71-71).

Ryan's research (1980) with students, whose average age was 25 or older, gave insight on advisement within ADPs. Ryan identified aspects of academic advising in her study which focused on adult expectations of college advising, faculty views of their role as advisers with adult students, similarities between the advisers' perceptions of advising and students' perceptions of advising (p.13). Ryan's sample was selected from faculty and incoming students at Metropolitan State University. Ryan identified "fifteen aspects of academic advising through the literature" (p.13). The fifteen aspects were generated from a review of academic advising, adult education and counseling literature, and discussions with persons who were concerned with academic advising. Students and faculty were asked to respond to the degree of importance of each aspect of academic advising. Faculty and students agreed on the importance of ten of the fifteen aspects of academic advising presented in Ryan's study: "awareness of student progress on the degree plan; put educational decision-making into the advisee's hands; awareness of other factors in the advisee's life such as family and job; provision of career information; personal and caring relationship; information about learning resources or opportunities such as internships; development of self-awareness; availability of the adviser;" "assignment to an advisee because of similar work or educational background" (p.42).

Adviser competencies were noted in students' evaluation of advisement in a degree program designed especially for adult students at Central Michigan University (Senter, 1984). Graduates from Central Michigan University's Institute for Personal and Career Development evaluated the academic advising process. "Students were asked the extent to which they agreed or disagreed with nine statements about their adviser(s) and academic advising generally" (Senter, 1984, p.2). These statements focused on the adviser giving the student a good impression of the institution, the adviser's knowledge of the student's career area, the adviser's knowledge of specific courses and instructors, the adviser's interest in the student, the adviser's knowledge of the institution's general regulations and rules, the adviser's helpfulness, the adviser's knowledge about program requirements, and the overall effectiveness of the advising system. 83% of the students reflected "positively on their adviser(s) or the advising system" (p.6).

Research on the University Without Walls (UWW) program also provided insight on the adviser role in ADPs. Eldred and Johnson (1977) noted advisement tasks which are performed by a variety of personnel in the UWW program at the University of Minnesota. Program advisers facilitated learning for UWW students, assisted the students with their UWW program design, and helped the students get learning resources (Eldred and Johnson, 1976). Program advisers instructed the students in the UWW process, procedures, and other bureaucratic aspects. Community persons also performed UWW advisement tasks. UWW students consulted with community persons in the student's major area and/or consulted with community persons on specific learning projects.

A new adviser role evolved as a result of advisement in ADPS. UWW students desired 'consultants' and 'learning facilitators' who helped students with goals clarification, asking questions, and offered criticism and advice about UWW students' progress relative to their education objectives (Eldred and Johnson, 1977). Decker, et al (1978) also referred to advisers as educational consultants. The educational consultant assisted the student in developing competencies necessary to self-direct learning. The educational consultant viewed his/her role as a facilitator in the educational process, who encouraged the student to be self-directed. Grites (1979) also viewed the adviser as "a facilitator...a coordinator of learning experiences, and a referral agent" (pp.8-9). The educational consultant's advisement function was viewed "as a teaching-consulting function with a priority goal of helping the student learn the art of self-evaluation as a prerequisite to life-long learning" (Decker, et al, 1978, p.68).

The role of mentor at Empire State College (ESC) also gave insight on the new adviser's role in ADPs (Bradley, 1975). ESC mentors helped the students with articulation of their educational plan. ESC mentors assisted students in implementing their educational plans. Frequently, this process had the ESC mentor tutor the student in areas which the mentor had expertise. The ESC mentor might "help the student locate and obtain appropriate learning resources" (p.7). It was the ESC mentor's primary responsibility to guarantee "the quality of the student's work" (p.7). Mentors participated in ESC's development: "they play a key role in the formation of academic policies" (p.7). The ESC mentor helped the students examine academic options, helped the students discover goals and identify new areas to explore. The ESC mentor's relationship with the student required the mentor's involvement in the following activities: counseling and advising, designing contracts and programs, offering appropriate instruction, assessing and evaluating, managing and developing instructional resources (p.8). Activities of the ESC mentor role were divided into 11 sets (Bradley, 1975). These sets of activites were program planning, contract design, evaluation, instruction, student counseling, center development, informal conversations, developing instructional resources, college development, professional development, and other activites (p.9).

Bradley (1975) noted ESC mentors had "three types of advisement relationships with students: academic/vocational advisement, as sounding board for personal problems, and as ombudsman" (p.11). The only type of advisement prescribed in the ESC mentor's statement was academic/vocational, which was considered the major part of the mentor's advisment function.

ESC mentors reported that the students requested counseling regarding graduate school options, career re-orientation, and the current job situation. Personal advisement and ombudsman were unstated aspects of the ESC mentor's role.

ESC mentors indicated in Bradley's study (1975) "that promoting student intellectual development is the most important single aspect of their role" (p.12). Mentors helped the "students determine a concentration and appropriate ancillary areas of study" (p.12). A significant part of the ESC mentor's role was portfolio assistance. ESC mentors played "a major role in this process of developing goals, identifying appropriate prior learnings and synthesizing them into a coherent package (p.13). ESC mentors also helped with the design and evaluation of the learning contracts (p.13). ESC mentors also served on committees which review student degree program portfolios, and candidacy for graduation.

Schneider, Klemp, and Kastendiek (1981) also examined the mentor's role in ADPs to establish a framework to select mentors in ADPs and to impact the development of these mentors, Schneider, et al (1981) identified the skill, abilities, and characteristics of effective mentors in degree programs for adults. Five competence categories of effective mentors in degree programs for adults were defined: "student-centered orientation, humanistic-learning orientation," "creating a context conducive to adult education, grounding learning objectives in an analysis of students needs, and facilitating the learning process" (Schneider, et al, pp.55-58).

Literature on faculty roles in individualized education programs also gave insight on the adviser's role in ADPs. Faculty roles, in individualized education programs, were divided into 5 categories by Bradley (1973): degree program design, learning evaluation, learning activity selection, learning activity monitoring, and advisement--viewed as a separate category for common faculty role activities in individualized education programs. Degree program design included helping the student design an individualized degree program and helping the student develop a portfolio to document evidence of learning. Learning activity selection included helping the student "select learning activities that will together achieve the goals and objectives as articulated in the degree program" (Bradley, 1978, p.7). Learning activity selection also may have included developing a learning contract and choosing appropriate courses. Learning activity monitoring included periodically discussing student's problems and progress and may have included monitoring one activity or all learning activities.

Bradley (1978) viewed advisement as an activity separate from degree program design, learning evaluation, learning activity selection, and learning activity monitoring. Four types of advisement were generated from Bradley's study (1978): "educational advisement, vocational advisement, helping with red tape, and personal counseling" (p.8). The focus of educational advisement was future educational plans. Vocational advisement included concerns regarding current job, new jobs. "Helping with red tape" reflected the complexity of individualized education; often the students' personal concerns were discussed with faculty (p.8).

As an integral part of ADPs, assessment of learning gained outside the classroom provided a framework to understand the adviser's role in ADPs. Willingham and Burns (1974) outlined six stages of assessment of learning gained outside the classroom. In stage one of assessment, learning gained outside the classroom or experiential learning to be incorporated in a program was identified. The second stage of assessment focused on articulation of experiential learning into educational goals. Stage three of assessment involved documentation of learning gained outside the classroom. Stage four of assessment focused on the character and extent of the skill or knowledge acquired. Stage five of assessment focused on evaluation: examining if the competency gained outside the classroom meets acceptable standards and determining the amount of credit which will be awarded and/or recognition for the learning gained outside the classroom. The final stage of assessment focused on transcripting the credit awarded or recognition given for learning gained outside the classroom.

Grites (1979) outlined the adviser's responsibilities in a program which awards credit for life experiences. These responsibilities were to have an awareness of curricular options, to facilitate the credit for life experiences process, to help the students develop confidence in their life experiences, to help the students translate their life experiences within an academic setting, to assist with the preparation of documentation of learning gained outside the classroom, to develop an awareness of adult student needs and characteristics, and to develop an awareness of adult behavior and development (Grites, 1979, pp.31-34).

Assessment functions were identified by Reilly (1975). Assessment functions were criterion defining, selecting, structuring, adapting, observing, recording, and judging. The assessor played "a role in the specific definition of the standards against which the evidence presented by the student is to be judged" (p.6). The assessor defined the standards in objective terms. The assessor may have had to determine which procedure would be most appropriate for documentation of the learning gained outside the classroom. The assessor also may have had to decide the format of the documentation: unstructured such as an interview or structured as an examination. The assessor adapted assessment techniques to the individual needs and experiences of the student. The assessor observed the student's performance, behavior, and products prior to making an assessment decision. Records of the observations were kept by the assessor. The assessor also was responsible for "quantifying the students' prior learning" (p.6). Reilly's assessment functions were not necessarily performed by one person (p.7).

Academic advisers' responsibilities in the University Without Walls (UWW), at Northeastern Illinois University (UNI), gave insight into the adviser's role in ADPs. UWW academic advisers had the following responsibilities: facilitated the assessment evaluation of the student's learning gained outside the classroom, provided guidance regarding the development of documentation to substantiate learning gained outside the classroom, evaluated the student's progress relative to UWW goals and objectives and articulated these evaluations to the UWW administration, assisted the student in the development of individualized undergraduate curriculum--identified competencies to be acquired and identified specific learning experiences and activities, collaborated with the student's community resources regarding the student's program, served as liaison between the student and UNI resources, and consulted with the student on preparation for graduation: narrative abstract development and Review Board material selection (Northeastern Illinois University, 1983).

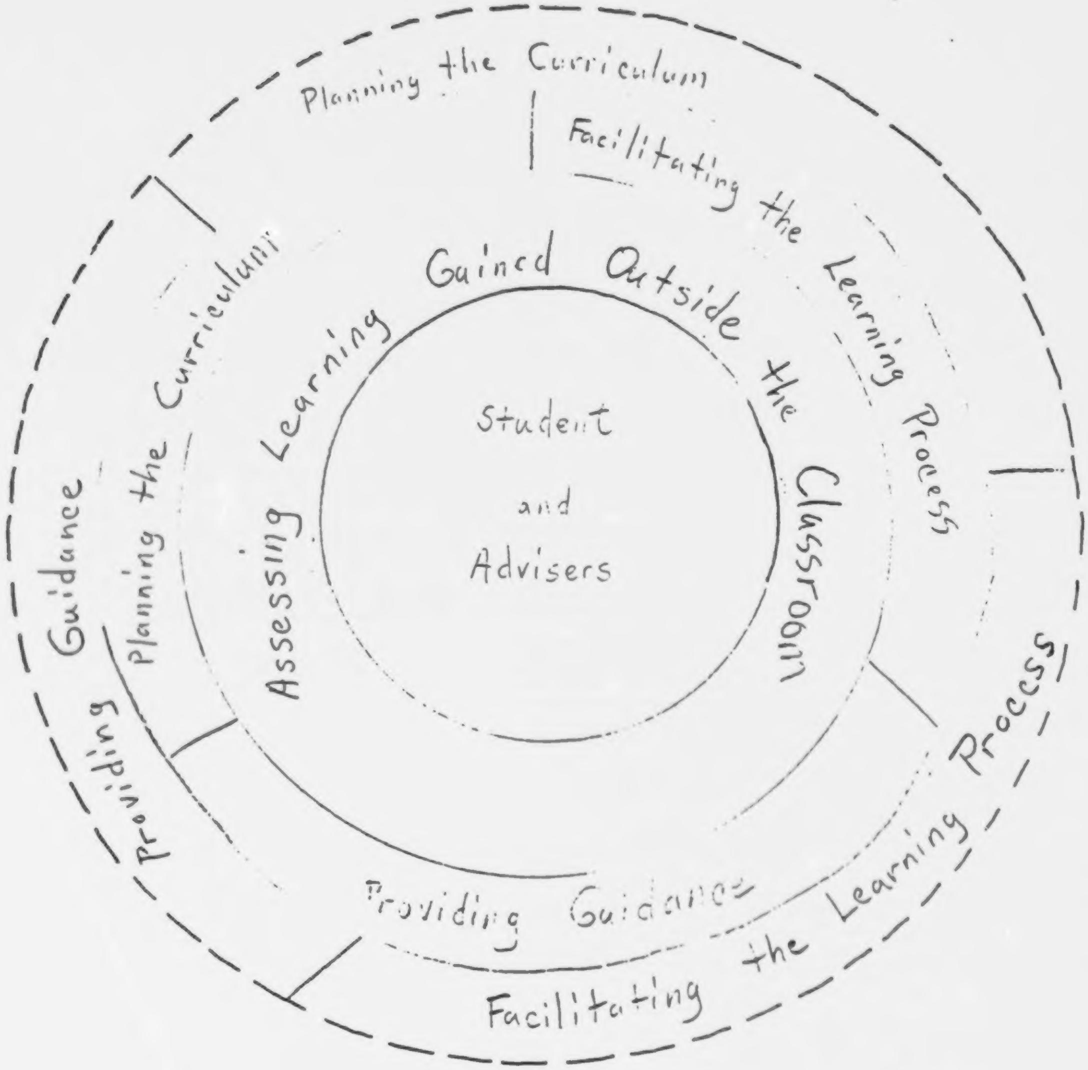
The literature on advisement, degree programs designed especially for adults, and counseling the adult students, provides a basis to understand advisement within ADPs. Another way to conceptualize ADP advisement is to examine advisement tasks within ADPs by determining advisers' perceptions of ADP advisement tasks and students' perceptions of ADP advisement tasks. ADP advisement tasks can be examined in several areas: the importance of the ADP advisement tasks to advisement, the extent to which these tasks are performed by advisers and the extent to which students share responsibility in performing these advisement tasks with their advisers.

Basic assumptions can be made regarding the role of advisers in ADPs. The adviser is viewed as a teacher-consultant (Decker, et al, 1978) who attempts to move learning and life closer together. Students and advisers share responsibilities regarding the advisement tasks in assessing the learning gained outside the classroom, planning the curriculum, facilitating the learning process, and providing guidance. The advisers help the student through the process of self-directed learning. The advisers are responsible for monitoring the quality of the student's academic work.

Advisement tasks have changed as a result of ADPs. Advisement in colleges and universities "evolved from a routine, isolated, single-purpose, faculty activity to a comprehensive process of academic, career, and personal development" (Grites, 1979, document resume). The relationship between the student and adviser has been altered--advisement has become a shared responsibility of both students and advisers. This relationship involves "a team approach to planning the student's educational experiences and evaluating both the experiences and the student's performance (Decker, Redhorse, and Lucas, 1978, p.72).

Advisement in ADP requires the adviser to be responsible for several tasks rather than having a single task as an advisement focus. Four areas of ADP advisement tasks can be noted: assessing learning gained outside the classroom; planning the curriculum planning; facilitating the learning process; providing guidance. Figure 1 illustrates ADP advisement. The assessing of learning gained outside the classroom precedes the other areas of ADP advisement tasks. The tasks in the other areas are not always performed sequentially; they are performed according to the student's needs. The traditional approach to advisement is inappropriate for ADPs because the approach focuses on a prescribed curriculum which customarily excludes learning gained outside the classroom.

In assessing learning gained outside the classroom, the adviser assists with identifying appropriate life experiences to be included in a degree program. This process requires the adviser to determine what criteria will be used to evaluate learning generated from life experiences and establish specific terms as to how this learning will be evaluated. If some of the learning gained outside the classroom is in the adviser's academic area of expertise, the adviser will serve as a subject area expert in evaluating the learning gained outside the classroom. In ADP advisement, the adviser provides direction on the development of documentation to yield evidence of learning generated from life experiences. The adviser becomes responsible for


Planning the Curriculum
Facilitating the Learning Process
Planning the Curriculum
Gained Outside
Assessing Learning
the
Classroom
Student
and
Advisers
Guidance
Providing
Providing Guidance
Facilitating the Learning Process

Adult Degree Program (ADP)
Advisement
Figure 1

determining the value of student's learning gained outside the classroom and completes the necessary paperwork to record learning generated there from.

Another ADP advisement task area is planning the curriculum. The adviser helps the student develop an understanding of learning goals and provides assistance in translating these goals into specific learning activities. Relative to planning the curriculum, the adviser helps the student determine which learning generated from life experiences will form part of the student's program.

Facilitating the learning process is another area in which the adviser performs ADP advisement tasks. The adviser assists the student in identifying on-campus and community learning resources. The adviser also serves as subject area expert, and examines and discusses topics in the adviser's primary area of academic interest. Periodically the adviser evaluates the student's progress relative to the learning goals. The adviser is also involved in determining the student's degree candidacy, assisting the student with the preparation for graduation evaluation process, and serving as an advocate for the student in this process.

The fourth ADP advisement tasks area is providing guidance. This area focuses on career development, graduate school guidance, and administrative competencies. The adviser helps the student identify occupations and career options, and helps the student determine career directions. The adviser helps the student identify graduate school opportunities. Administrative competencies which the adviser may perform involve providing information regarding program and institutional requirements, policies, and procedures; and serving as a contact with resources on- and off-campus.

The role of the student has changed as a result of ADP advisement. He/she is assumed to be self-directed, capable of sharing responsibilities in the areas of assessing learning gained outside the classroom, planning the curriculum and facilitating the learning process, and providing guidance. ADP advisement expects the student to have some sense of academic direction and learning resources within his/her community. The student is perceived to have generated learning from life experiences which merit academic recognition. This change in the student role impacts the role of adviser--student and adviser become co-participants in the learning process.

As a result of ADP advisement, several patterns regarding the adviser role evolved. The adviser gives varying time commitments to ADP advisement--full-time, part-time, or works overload. Several individuals have adviser responsibilities in ADP advisement. Teaching faculty are used as the primary advisers while administrators and community persons also perform ADP advisement tasks. Using teaching faculty as primary advisers of ADP helps to keep the ADP's academic standards consistent with the institutions' academic standards.

The perceptions of advisers and students can be used as a framework to examine ADP advisement, how important are the ADP advisement tasks in a degree program designed especially for adults? To what extent do advisers perform ADP advisement tasks? To what extent do students share with their advisers responsibility for performing ADP advisement tasks?

Research questions based upon the perceptions of advisers and students are as follows:
a. What is the perceived degree of importance that the advisers attach to ADP advisement tasks in conducting their work?
b. To what extent do advisers perceive themselves performing ADP advisement tasks?
c. To what extent do advisers perceive sharing responsibility with their students for performing ADP tasks?
d. What is the perceived degree of importance that students attach to ADP advisement tasks?
e. To what extent do students perceive their advisers performing ADP advisement tasks?
f. To what extent do students perceive sharing responsibility with their advisers for performing ADP advisement tasks?

The ADP adviser's role can be conceptualized by examining ADP advisement tasks, considering the following:
1. comparing the advisers' perceptions of the degree of importance attached to the ADP advisement tasks and the students' perceptions of the degree of importance attached to the ADP advisement tasks.
2. comparing the advisers' perceptions of the extent to which advisers perform ADP advisement tasks and students' perceptions of extent to which advisers perform ADP advisement tasks.
3. comparing the advisers perceptions of students sharing responsibility with their advisers for performing ADP advisement tasks and the students' perceptions of students sharing responsibilities with their advisers for performing ADP advisement tasks.
4. comparing the advisers' perceived degree of importance of ADP advisement tasks and the extent to which advisers perceive they perform ADP advisement tasks.

5. comparing the advisers' perceived degree of importance of ADP advisement tasks and the extent to which advisers perceive they share responsibility with the students for performing ADP advisement tasks.
6. comparing the advisers' perceived degree of importance of ADP advisement tasks and the extent to which students perceive advisers perform ADP advisement tasks.
7. comparing the advisers' perceived degree of importance of ADP advisement tasks and the extent to which students perceive they share responsibility with their advisers for performing ADP advisement tasks.

In conclusion, research on ADP advisement tasks has several implications for advisers' comprehension of ADP advisement. Examining ADP advisement tasks might help advisers better understand their roles in a degree program for adults. New advisers can develop an understanding of ADP advisement, while experienced advisers can develop a clearer perspective of ADP advisement. Professional development agendas for advisers might be generated by examing ADP advisement tasks. Advisers can establish personal agendas--focusing on ADP advisement tasks which have not been addressed by the advisers. Programs may note ADP advisement tasks which have been noted important and not performed, and as a result develop activities which address these tasks. ADP advisement tasks which are noted as important and not performed could cause colleges and universities to pool resources for interinstitutional, adviser development activities.

The role of the student in a degree program for adults might be clarified as a result of research on ADP advisement tasks delineated in this study. Perceptions of advisers and students relative to sharing responsibility in performing ADP advisement tasks might help students better understand what is expected of them in a degree program designed especially for adults.

Research on ADP advisement tasks has implications for program evaluation. ADP advisement tasks delineated by research can establish a framework for evaluating advisers in degree programs for adults. A performance criterion using the ADP advisement tasks as a framework of evaluation can be established by this research. Programs can also be able to ascertain the extent which their program policies reflect ADP advisement tasks delineated by research.

References

Bradley, A. P. (1978). The Empire State College mentor: an emerging role. Saratoga Springs: Empire State College.

Bradley, A. P. Jr. (1978). The new professional: a report on faculty in individualized education. Saratoga Springs: State University of New York, Empire State College. (ERIC Document Reproduction Service No. ED 181770)

Decker, J. T., Redhorse, J. R., and Lucas, G. R. (1978). The advising system: an alternative model related to the evaluation of self-directed learning. Alternative Higher Education, 3 (2), 68-78.

Eldred, M. D. and Johnson, J. N. (1977). Adult students in the University Without Walls. The Journal of General Education, 29, 2 Summer 1977, 81-88.

Grabowski, S. M. (1976). Educational counseling of adults. Adult Leadership. 225-227, 249.

Grites, T. J. (1979). Academic advising: getting us through the eighties. Washington, D.C.: George Washington University. (ERIC Document Reproduction Service No. ED 178023)

Northeastern Illinois University (1983). Responsibilities of UWW Academic Adviser. (Available from UNI-UWW, 5500 N. St. Louis, Chicago, IL 60625)

Reilly, R. (1975). Methodological problems and issues related to the use of judgements for assessment. CAEL Working Paper No. 10. Educational Testing Service.

Ryan, C. C. (1980). Adult student and faculty expectations of academic advising in a nontraditional university. St. Paul: University of Minnesota. (ERIC Document Reproduction Service No. ED 178023)

Schneider, C., Klemp, G.O., Jr., and Kastendick, S. (1981). The balancing act: competencies of effective teachers and mentors in degree programs for adults. Chicago: University of Chicago & McBer and Co.

Senter, M. (1984). May, 1984 graduates evaluate academic advising and the IPCD. (Available from IPCD, Central Michigan University, Mt. Pleasant, MI, 48859)

Willingham, W., Burns, R., and Donlon, T. (1974). Current practices in the assessment of experiential learning. CAEL Working Paper No. 10. Educational Testing Service.

TRANSCRIPTING OF NONTRADITIONAL OR EXTRAINSTITUTIONAL CREDITS

Presenter: Dr. Marie Redwine
Institution: Director, Adult Degree Program, Southwestern
Adventist College, Keene, Texas, 76059

The transcript credential is the only means many third parties have for knowing about the learning of a student and how it contributes to a degree. Willingham (1977) says there are two essential elements of a good transcript: (a) the content of learning, i.e., what competence or knowledge was involved, and (b) the level of learning, i.e., what scope of depth was achieved.

Since experiential or prior learning often emphasizes application of knowledge in a practical way rather than mastery of traditional subject matter, it becomes difficult to equate a letter grade to describe this knowledge. Therefore accurate description and recording of learning outcomes is a very important part of the assessment process.

The National Guide to Education Credit for Training Programs defines Extrainstitutional learning as, "learning that is attained outside the sponsorship of legally authorized and accredited postsecondary educational institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military, and union."

It is felt by Meyer (1975) that while some institutions have elected to disguise the fact that certain credits were achieved through the evaluation of previous learning, not revealing this information tends to make a mockery of the entire process.

Wedemeyer (1986) maintains that transcripts which show traditional courses taught in the classrooms make no distinction as to exactly how each course was taught. Likewise, he says, that should be no difference when nontraditional approaches to learning are displayed on a transcript.

The recording of academic credit for noncollege learning represents recognition by the college or university that the adult returning to school has learning achievements equivalent to college study.

Students can be and are regularly assessed by national examinations such as CLEP, by portfolios, oral interviews, supervisor's evaluations, university made examinations, demonstrations of competencies, DANTES, certificates, license, job descriptions, letters of reference , American Council of Education Credit Recommendations, college credit transfer, and others.

According to Higher Education and National Affairs (1986) the two areas receiving the most attention from campuses are assessment of student learning and competencies students should gain through their studies; more than half of the nation's colleges are discussing these areas.

Because of this increased interest in assessment, the issue of how to report it on the transcript becomes even more important.

AACRAO (in Quann, 1979) defines a transcript as a reproduction of the complete, unabridged educational record at the issuing institution and states that it must be an effective means of prompt and accurate communication of educational information.

Wedemeyer (1986) points out that with the utilization of electronic record keeping, many institutions keep two sets of records: (1) a true historical record for audit purposes of all courses added, dropped, grade changes, etc., and (2) a summary document showing academic performance. He further maintains that the Mastery Model is an important concept to apply when discussing transcripts. "The level of mastery as documented by the grade does not show how or where the course was taught nor does it show how often the student repeated the course to obtain that mastery. Only this information should be posted to the transcript so it can be used for the purposes of reviewing 'academic performance.'"

Willingham, et.al, (1977) says that the great significance of the systematic recognition of prior learning is the linkage it provides between final education and adult life; that is, a mechanism for integrating education and work, for recognizing the validity of all learning that is relevant to a college degree.

The process of granting credit for prior learning is assessing and evaluating an individual's experiences or knowledge by one or more faculty members who use a set of standards for assessing.

Assessing prior learning often produces data unlike the paper used to record traditional classes. There is the problem of what to do with the portfolios, products produced, and other data once the assessing process is finished. Then comes the problem of how to transfer this data to a transcript, and further, will it transfer to a receiving institution should the student decide to move?

Wermers (1979) supports that "transfer of credit is a concept that now involves transfer between dissimilar institutions and curricula and recognition of extrainsitutional learning, as well as transfer between institutions and curricula of similar characteristics."

In an attempt to discover how the articulation of prior learning and assessment is handled on transcripts, a twenty-six item survey was sent to approximately 150 colleges and universities with a forty-nine percent return. The survey shows a wide diversity for the basis of assessment. Only five percent of the colleges and universities give actual letter grades. Seventy-four percent of the respondents distinguish credits for prior learning from course titles and credits for classroom learning. Forty percent of respondents use a narrative description of achievement as a back-up to the transcript. Fifteen percent do not require enrollment in order to receive assessment of prior learning.

There is a need for colleges and universities to establish and maintain a standard for transcribing prior learning so that transferring such credits from college to college is readily understandable and acceptable.

This paper will look at the practices of several colleges and universities as to how they transcribe nontraditional credits.

PROFILE OF PRACTICES OF COLLEGES AND UNIVERSITIES IN NON-TRADITIONAL EDUCATION: A SUMMARY

1. Type of Institution:
   54% State
   46% Private

2. Size of Institution:
   16% Less than 1,000
   34% 2-5 Thousand
   21% 5-10 Thousand
   19% 10-20 Thousand
   10% Above 20 Thousand

3. 99% of Institutions are accredited.

4. 85% of Institutions are members of a nontraditional education-supporting professional organization.

5. Type of Program:
   34% have on-campus
   27% off-campus
   39% external programs

6. 76% indicated that their prior learning credits transfer to other institutions.

7. 73% accept nontraditional credits from other institutions.

8. 46% of institutions teach a credit course that includes preparation for assessment.

9. Credit for prior learning is recorded on the transcript:
   5% letter grade
   95% Credit

10. Credit is recorded:
    80% as soon as assessment is completed.
    20% at end of first classes taken at the institution.

11. 86% require students to enroll in order to receive assessment for prior learning.

12. 72% Institutions distinguish course titles and credits for prior learing from course titles and credits for classroom learning.

13. In the assessment process:
    63% have student request specific titles and number of hours of credit desired.
    37% have students turn in documentation and committee action determines course and number of credits to be given.

14. 39% use a narrative description of achievement as back-up to the transcript.

From the responses of surveyed institutions, it was found that there are about equal state and private institutions dealing with assessment of nontraditional or extra-institutional learning. Fifty percent of the institutions are five thousand or less in size.

Ninety-five percent of the institutions do not give a letter grade for prior learning but give credit. Thirty-nine percent of the institutions use a narrative description to back-up the transcript. It seems that only about five percent of the institutions use a letter grade for prior learning credit.

In order to see if there was a difference in practices depending on size of the institution, a comparison was done (Table #1) with size of institution and key questions. There was a noticeable difference in questions number one: "will credits transfer?" with the less-than-one-thousand institutions reporting their credits least likely to transfer and the five-to-ten thousand in size the most likely to transfer.

The "two to five thousand" and the "above twenty thousand" institutions were least likely to accept nontraditional credit.

Institutions with twenty thousand or more students were least likely to distinguish course titles and credits for prior learning from classroom learning.

There is a noticeable difference in question ten concerning use of a narrative description to back-up the transcript. Sixty-one percent of the two-to-five thousand size institution reported using a narrative description to back-up the transcript while none (0%) of the over twenty-thousand institutions reported a narrative back-up.

In comparing practices of private vs. state schools, there was not a significant difference that was found. Table 2 shows the information. Private schools indicated more often than state schools that their credits would not transfer. Private schools more often than state will require a student to register for classes at their university in order to be assessed.

Comparison of program types (Table #3) reveals even less differences. The one outstanding difference was that "off-campus" programs are least likely to accept nontraditional credit.

Examples of actual transcripts and how extrainstitutional credit is recorded on them will be shown.

BIBLIOGRAPHY

AACRAO *Academic Record and Transcript Guide* published by the American Association of Collegiate Registrars and Admission Officers. In Quann, C. James and Associates. *Admissions, Academic Records, and Registrar Services.* Jossey-Bass, 1979 p. 437.

Higher Education and National Affairs. Vol. 35, No. 4, March 10, 1986, Page 1. In a Report on the Role of Outcomes Evaluation In The Accreditation Process by Patricia Thrash 01390/rev 2/24/87.

Meyer, Peter. *Awarding College Credit For Non-College Learning*. Jossey-Bass. 1975.

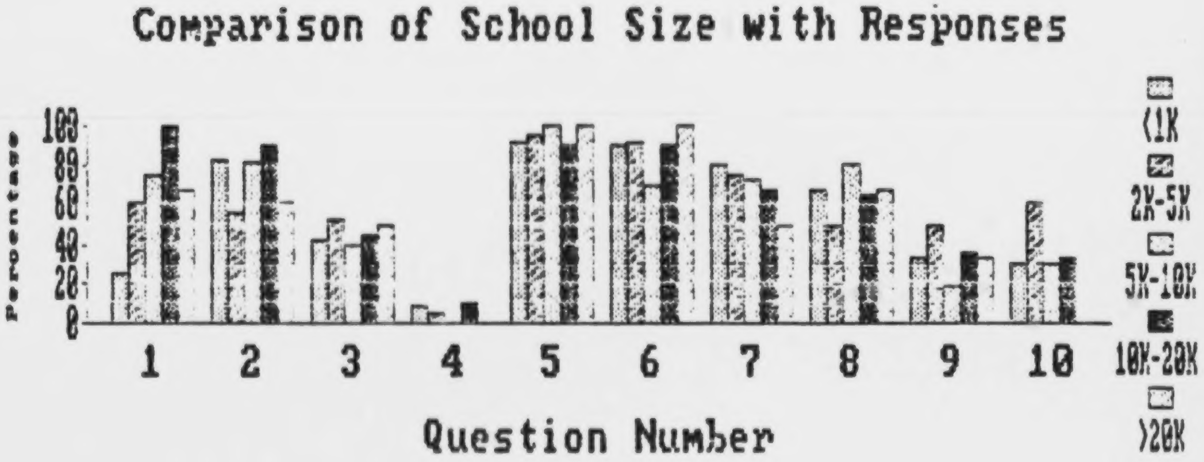
Wedemeyer, Richard H. "Transcripting Non-traditional Learning" *CAEL News*. Vol. 9, No. 5. July/August 1986. pp. 6 & 7.

Wermers, D.J. (ed.) Joint Statement: Transfer and Award of Academic Credit In Quann, C. James and Associates. *Admissions, Academic Records, and Registrar Services*. Jossey-Bass. 1979. p. 441.

Willingham, Warren W. *Principles of Good Practices In Assessing Experiential Learning: A Summary Report of the CAEL Project*. CAEL. 1977.

Willingham, Warren; Valley, John; and Keeton, Morris. *Assessing Experiential Learning: A Summary Report of the CAEL Project*. CAEL 1977. p. 60.

Table 1



1. Will your credits transfer?

2. Do you accept nontraditonal credits?

3. Do you teach a credit course for assessment?

4. Is prior learning recorded on the transcript with a letter grade?

5. Is prior learning recorded on the transcript as "credit'?

6. Is a student required to enroll in order to receive assessment of prior learning?

7. Are course titles and credits for prior learning distinguished from course titles and credits for classroom learning?

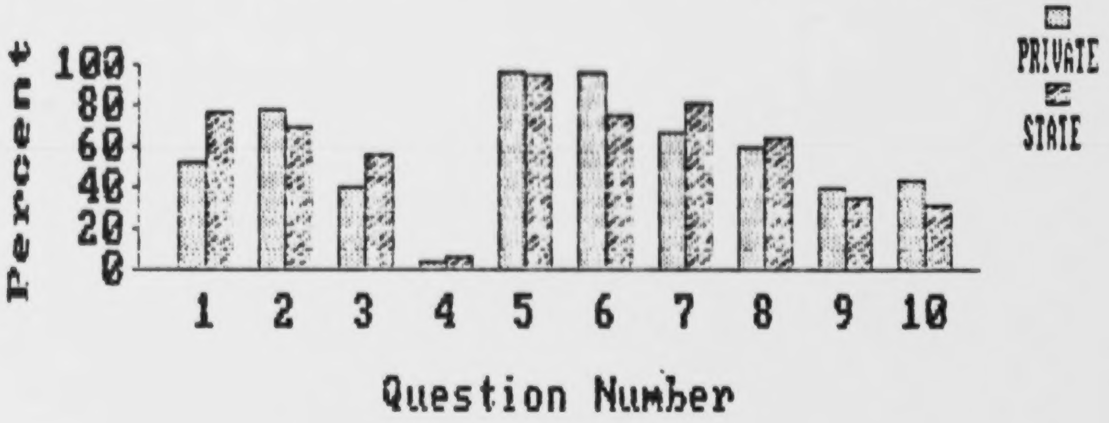
8. In your assessment process does the student request a specific title and number of hours of credit desired?

9. In your assessment process does the student submit documentation and committee action determines course and number of credits?

10. Do you use a narrative description as back-up to the transcript?

Table 2

Comparison of Private vs. State School Responses



1. Will your credits transfer?

2. Do you accept nontraditonal credits?

3. Do you teach a credit course for assessment?

4. Is prior learning recorded on the transcript with a letter grade?

5. Is prior learning recorded on the transcript as "credit"?

6. Is a student required to enroll in order to receive assessment of prior learning?

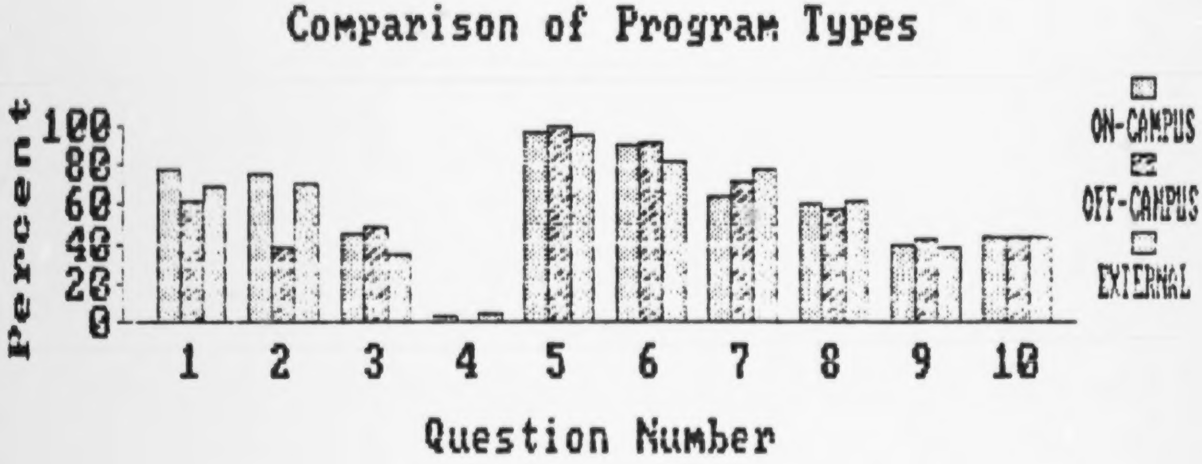
7. Are course titles and credits for prior learning distinguished from course titles and credits for classroom learning?

8. In your assessment process does the student request a specific title and number of hours of credit desired?

9. In your assessment process does the student submit documentation and committee action determines course and number of credits?

10. Do you use a narrative description as back-up to the transcript?

Table 3



QUESTIONS FOR THE GRAPH

1. Are you aware if your prior learning credits transfer to other institutions?

2. Do you accept non-traditional credits from other institutions?

3. Do you teach a credit course that includes preparation for assessment?

4. Is prior learning recorded on the transcript with a letter grade?

5. Is prior learning recorded on the transcript as "credit"?

6. Is a student required to enroll in order to receive assessment of prior learning?

7. Are course titles and credits for prior learning distinguished from course titles and credits for classroom learning?

8. In your assessment process does the student request a specific title and number of hours of credit desired?

9. In your assessment process does the student submit documentation and committee action determines course and number of credits?

10. Do you use a narrative description as back-up to the transcript?

INTRA-INSTITUTIONAL RELATIONS

THE CAPSTONE STUDENT:

BREAKING BOUNDARIES AND BUILDING BRIDGES INTRA-INSTITUTIONALLY

Roslyn Abt Schindler and Robert L. Carter
University Studies/Weekend College Program
Wayne State University

One of the most significant challenges facing liberal education is the growing population of students who want to apply an Associate of Applied Science degree in a technical, vocational, or professional field toward a general studies baccalaureate degree. Given the increasing importance of technology in society, articles that explore the relationships between liberal education and technology have begun to abound in professional and education journals; indeed, the whole March/April 1986 issue of Change was devoted to "Liberal Learning and Technology." Leaders in the field of higher education - Ernest L. Boyer, K. Patricia Cross, Russell Edgerton, John G. Truxal, among many others - who engage in an ongoing examination of the quality of undergraduate education in America, include this particular focus frequently in their writings. To be sure, colleges and universities should at least be contemplating, if not implementing, programs that create "novel combinations out of diverse learning," to refer to the title of an insightful analysis by Elting E. Morison.[1]

The University Studies/Weekend College Program (US/WCP) at Wayne State University (WSU) has addressed this issue directly with a particularly "novel combination." Its newest degree programs, the Bachelor of General Studies - Capstone Program (B.G.S. - Capstone) and the Bachelor of Technical and General Studies (B.T.G.S.), initiated in 1984 and 1986 respectively, offer Associate of Applied Science graduates an opportunity that is unprecedented and unique at Wayne State University, indeed nationwide. With a national and international reputation as an excellent interdisciplinary general studies bachelor's degree program for adult learners that has been in existence since 1973, the US/WCP has expanded its boundaries. In order to serve these new students, the US/WCP has had to break boundaries and build bridges internally at Wayne State University, in addition to establishing important relationships with other educational institutions, namely community and junior colleges in the Detroit metropolitan area. These bridges, moreover, are analogous to bridges that the students themselves must build academically in our program, as they expand and deepen their prior technical experience and training as well as broaden their knowledge and experience to incorporate interdisciplinary general studies in order to achieve a fully liberal education.

The US/WCP's Bachelor of General Studies - Capstone Program and Bachelor of Technical and General Studies are representative of the growing quest to bring "technology and the liberal arts together"[2] in undergraduate education. The focus in articles by Judith Axler Turner and Elting E. Morison, among others, as well as in the respected work of John G. Truxal is clearly on bringing technological literacy to all "liberal arts" students and on the inherent interdisciplinary nature of the teaching of technology. Truxal maintains:

> Technology, after all, is simply the application of scientific knowledge to achieve a specified human purpose. As technology is directed toward a societal goal, every new technology involves questions of ethics and values, which must be judged from aesthetic, historical, and philosophical viewpoints. Furthermore, technological change has economic, sociological, and behavioral implications for both the country and those individuals directly involved.[3]

The US/WCP's Capstone programs reflect the emphasis expressed by Turner, Morison, Truxal, and others and achieve similar results, not only within specific courses or course sequences (such as those Science, Technology, and Society courses offered at Vassar College, Williams College, SUNY at Stony Brook, Wellesley College, among others[4]) but uniquely within a total baccalaureate degree program. Essentially, the distribution requirements of both degree programs are the same, except that B.T.G.S. students are restricted in their sequence of electives (called "Specialty Studies") and in their choice of Senior Capstone Project, both of which must be related to and build upon (enhance, broaden, deepen) their prior technical studies. Otherwise, both programs resemble a reverse 2 + 2 curriculum, whereby students combine their technological and interdisciplinary studies education:

BACHELOR OF GENERAL STUDIES - CAPSTONE

I.	Associate of Applied Science Degree	64 credits
II.	Core Interdisciplinary Studies	40 credits

GIS 308	Capstone Conference	4
GIS 151	Communication Skills	4

Interdisciplinary Studies in:			
Social Science	7		
Humanities	7		
Science and Technology	7		
Foundations of Knowledge	7		
AGS 492 Senior Capstone Project		4	
III. Electives (in a technical area, general studies, or a combination of these)			24 credits
Total			128 credits

BACHELOR OF TECHNICAL AND GENERAL STUDIES

I. Associate of Applied Science Degree			64 credits
II. Core Interdisciplinary Studies			40 credits
GIS 308 Capstone Conference		4	
GIS 151 Communication Skills		4	
Interdisciplinary Studies in:			
Social Science	7		
Humanities	7		
Science and Technology	7		
Foundations of Knowledge	7		
AGS 492 Senior Capstone Project		4	
III. Specialty Studies (specialized courses in the student's technical, vocational, or professional field or in an applied area)			24 credits
Total			128 credits

Each component of both degree options has been carefully designed to:

> adapt courses and curricular focus to the prior knowledge and background, work experience, and associate degree courses that the student brings to the program. All aspects of the degrees have been developed to ease the transition between the two-year and the four-year institution, to bridge the gap between technical and interdisciplinary general studies, and to offer students the opportunity to enhance their prior technical training with a sequence of [appropriate] upper level courses.... Finally, the Senior Capstone Project is a culmination of the student's university-level educational experience.[5]

From the Capstone Conference, an intensive course held over four weekends during the semester that enables students to explore "the community college - university connection"[6] and to examine the connections between their technical studies and interdisciplinary studies, to the Senior Capstone Project, a one-semester intensive research and writing experience, Capstone students participate in an educational program that emphasizes all of the "Seven Principles for Good Practice in Undergraduate Education." These principles are included in an excellent article by noted authorities Arthur W. Chickering and Zelda F. Gamson and based upon documented "research on good teaching and learning in colleges and universities:

> Good practice in undergraduate education:
>
> 1. Encourages contacts between students and faculty.
>
> 2. Develops reciprocity and cooperation among students.
>
> 3. Uses active learning techniques.
>
> 4. Gives prompt feedback.
>
> 5. Emphasizes time on task.
>
> 6. Communicates high expectations.
>
> 7. Respects diverse talents and ways of learning.[7]

US/WCP Humanities Professor Carl E. Rollyson, Jr., one of the earliest coordinators of US/WCP's Capstone Program and the Capstone Conference, captures the essence of the Capstone experience for students:

> The general education concept of the informed and humane citizen, the creative and critical thinker, is balanced by discussion of actual problems, in which the students' technological backgrounds are put to use in collective, group exercises that emphasize active participation in learning. Positive communication skills, group skills, career balance,...and teaching others to teach themselves...have in recent years become an integral part of orienting adults to

> lifelong learning. At the same time, this approach responds to educators' recognition of the gap between liberal arts and vocational studies....8

US/WCP Science and Technology Professor Clifford Maier, who has served as US/WCP's Capstone Program coordinator since 1985, has gathered useful and revealing educational profiles of our entering Capstone students. The following two-year summary chart, developed by the authors of this paper from the narratives collected by Professor Maier, provides significant information with respect to the bridge between students' prior technical training and future educational and career aspirations:

EDUCATION PROFILES OF US/WCP CAPSTONE CONFERENCE STUDENTS:

TWO-YEAR SUMMARY

• Semester:	Fall 1985	Winter 1986	Fall 1986	Winter 1987	Totals
• Number of Students:	13	11	29	15	68
• Community College:					
Macomb Comm. Coll.	4	6	14	7	31
Oakland Comm. Coll.	3	0	4	4	11
Wayne County Comm. Coll.	0	1	4	2	7
Henry Ford Comm. Coll.	2	1	3	0	6
Schoolcraft Comm. Coll.	2	0	0	0	2
Detroit Eng. Institute	0	0	1	0	1
Highland Park Comm. Coll.	0	0	1	0	1
Other (out-of-state)	2	3	2	2	9
• A.A.S. in:					
Business (Mgt.)	1	3	3	2	9
Automotive Tech.	0	2	3	3	8
Computer Data Processing	0	1	1	4	6
Legal Assistant Tech.	0	1	3	1	5
Industrial Mgt.	1	0	3	0	4
Industrial Elec.	3	0	0	0	3
Industrial Tech.	1	0	1	1	3
Engineering Tech.	0	3	0	0	3
Electronic Tech.	0	0	3	0	3

Manufacturing Tech.	0	0	3	0	3
Marketing	2	0	0	0	2
Purchasing	1	0	0	1	2
Court & Conf. Reporting	0	0	2	0	2
Medical Research Management	0	0	2	0	2
Other:	4	1	5	3	13
e.g. Tool & Die Design; Biomed. Tech.; Accounting; Info. Tech; Labor Relations; Animal Health; Medical Tech.					
• Electives or Specialty Studies in: (more than one choice)					
Business(Mgt.)	11	3	18	10	42
Computer (Tech.)	1	1	8	7	17
Communication	1	1	5	4	11
(Pre) Law	0	4	4	0	8
Engineering	0	2	3	2	7
Labor (Relations)	0	2	0	3	5
Social Work	1	0	1	0	2
Other: e.g. Design; Education; Health fields.	0	0	3	2	5
• Degree Candidacy:					
B.G.S.-Capstone	8	4	15	10	37
B.T.G.S.	5	7	14	5	31

The most significant aspects of the chart and data relate to 1) the tremendous diversity of prior technical training; 2) the significant concentration of numbers in the top three elective or specialty studies choices; and 3) the almost equal popularity of the B.G.S. - Capstone and B.T.G.S. degree options. US/WCP Capstone students enter our Program with a great variety of Associate of Applied Science degrees, and most choose to pursue their elective or specialty studies in keeping with business or management career aspirations. In addition, it is clear from the narratives that most students choose our Program 1) to maximize transferability of their prior technical credits; 2) to advance in their present positions or to broaden and strengthen their options for new careers;

3) to become "better rounded" individuals, "to balance my specialized degree with a broader, more general degree"; and 4) to further their education eventually with a graduate degree. These students recognize the value of US/WCP's interdisciplinary studies component and a "liberal education" as a complementary balance to their prior and future specialized studies; indeed, they seek out and focus upon these connections themselves. However, both B.G.S. - Capstone and B.T.G.S. students never lose sight of the courses that they will take in other WSU colleges, courses that they view as essential to the enhancement of their technical training and their future career possibilities.

Both the B.G.S. - Capstone and B.T.G.S. degree programs have and continue to require intra-institutional cooperation between the US/WCP and a number of departments and colleges at Wayne State University in addition to the administration and the Board of Governors. Breaking boundaries and building bridges have been integral parts of the success of the Capstone programs from the start and are ever more important as US/WCP's Capstone population grows and seeks to participate in courses offered especially by the Colleges of Business, Engineering, Liberal Arts, and Pharmacy and Allied Health, in keeping with students' educational and career choices.

The very nature of the program and its academic requirements have forced us to establish better communications, explain curricula, and develop cooperative relationships with other WSU Colleges and departments. The success of our efforts is governed by the achievement of three primary objectives: (1) the establishment of a significant number of courses in a single college to constitute a Specialty Studies sequence, (2) the availability of courses offered through WSU/CLL Extension Centers at times and locations suited to our students, and (3) the absence of academic bias against non-traditional students and against students with technical college backgrounds in general. To this end we initiated dialogue with the chief academic officers (Deans) of each designated college to ensure (1) comprehension of the B.T.G.S. degree, (2) explanation of the Specialty Studies sequences, (3) course availability--with reference to existence, time, location, and format, and (4) information-sharing between advising staffs for consistency of academic workplans.

Each effort has not met with similar results: the Business School has been cooperative and has expressed the need for further course development and expanded offerings; Allied Health and Pharmacy perceives our curriculum as an opportunity to provide bachelor's degrees to groups of students who ordinarily terminate their education after acquisition of the Associate of Applied Science degree; Liberal Arts is justifiably cautious because of its size and number of departments (and we have had greater success with a department-by-department approach); and Engineering remains the most difficult diplomatic hurdle.

It is fair to say that our political and diplomatic efforts to win cooperation of other WSU colleges have depended (and still depend) more on our ability to convince individuals of the value of the program to their financial and educational interests than any appeal to "Urban Missions," higher education access, or absence of bias. Thus, Engineering, for example, becomes the most difficult school to penetrate because it perceives that Capstone--at least as it is implemented by US/WCP--may not serve its purpose or its interest. The engineering program is very rigid, requires distinguished prior achievements, and has established prerequisites that do not coincide with most of the technical courses undertaken by A.A.S. degree students. We find an increasing need, therefore, to encourage Engineering to expand its curricular offerings and degree options to serve an ever-increasing number of potential engineering-related degree students.

Our success centers on evidence that the market for engineering-related bachelor's degree options encompasses thousands and by our cooperation with Engineering in promoting their own Engineering Technology degree--easily the most popular, if not the most successful, Capstone-type program at Wayne State University. The institution of University-wide General Education Requirements--effective in the fall of '87--increases the value of US/WCP to technical colleges inside Wayne State, because we offer courses required in communications, critical thinking, and humanities. In fact, we could serve as the specialists for the "general education" for those professionally-oriented colleges. In fact, we anticipate several major outcomes from our partnerships with other colleges and departments, among them: (1) our traditional bridge course (conducted entirely on weekends) will become the primary vehicle for coordinating technical and general studies for the entire University, (2) new degree options in technology, organizational management and leadership, etc. will be jointly proposed and implemented by CLL and other colleges in partnership, and (3) in the implementation of their own Capstone options, WSU Colleges will enlist US/WCP to provide required sequences in general and interdisciplinary studies.

It is this fact, that the other Colleges are included in and governed by the same WSU Board of Governors legislation that controls US/WCP, that separates the issues of "Breaking Boundaries" and "Building Bridges." Essentially the Board of Governors challenged each college and department to develop "Technical/Professional Capstone Programs and to recommend degrees which designate successful completion of Capstone Program requirements."[9] The official proceedings of the BOG's document continue:

> Departments within schools and colleges may propose the establishment of Capstone Programs in their particular professional and disciplinary areas.
>
> The Weekend College Program of the College of Lifelong Learning as well as each of the other schools and colleges have the authority to develop General Studies Capstone Programs and to recommend degrees which designate successful completion of the Capstone Program requirements.[10]

The political situation was confusing at best and presented a real dilemma at worst: although Capstone legislation clearly encouraged participation in curricular innovation by all segments of the WSU academic community, US/WCP moved with haste toward implementation (presenting immediately versions of the B.T.G.S. that were unacceptable), while most other units procrastinated. This hesitancy reflected/reflects a lack of confidence in the quality of community college education and skepticism as to the translation of many technical courses (for which there are no WSU parallels) into undergraduate credit. Indeed, the prospects of incorporating such curricula into the US/WCP's graduation requirements proved/proves a unique challenge.

The results have been mixed: (1) disfavor, because of US/WCP's bold attempt to implement the Board of Governors decision in spite of transferability problems and the demonstration that the policy could be implemented successfully, (2) favor, because of US/WCP's willingness to assume risks, which, if successful would prove beneficial to others colleges contemplating Capstone Degree options, and (3) skepticism because an administratively promoted program appeared to be an imposition on faculty preference. Our initial contact with the College of Liberal Arts, in fact, was devoted almost exclusively to the difficulty of implementing a bachelor's program in which holders of an A.A.S. degree were assured of junior standing at WSU without detailed reference to the prerequisite nature of the courses comprising the A.A.S.

Our agreements with WSU colleges have focused on assurance (1) that all students taking advanced courses under the Specialty Studies sequence will have appropriate prerequisites or departmental consent, (2) that course completions in the department does not render a student eligible for a major in that department--such eligibility is under the jurisdiction of the department, (3) that there will be no duplication of courses and degrees, but encouragement for joint sponsorship of curricula, and (4) that colleges will endorse the cooperative efforts of US/WCP, Community Colleges, and WSU Colleges in devising and implementing curricula that broaden and enhance the prior technical training of Capstone students.

The political and diplomatic relationships between US/WCP and other WSU colleges are necessary to the survival of Capstone; however, many other University offices have significant roles in this unique undertaking: (1) senior administration (President and Provost), (2) Admission Officers, (3) Advising and Counseling, and of course, (4) the WSU faculty. The Board of Governors and President, through external pressures of the community colleges and internal motivation by specific units, passed original legislation for Capstone on July 15, 1983, and it was under a new president and administration that WSU was forced to face certain realities: (1) demographic data indicated a declining population of 18-year-old graduates and enrollees at WSU; (2) urban commuter institutions would one day house more returning adults than traditional college-age students; (3) an urban university must provide access; and (4) perhaps the greatest economic reality of all, 75 percent of the students graduating from community/technical/professional colleges were in the technical fields, holders of A.A.S. degrees.

We have maintained close relations with all offices affecting the transfer student, but especially with Admission, since this office coordinates many recruitment activities and provides settings for exchange of ideas and frustrations. Major luncheons, for example, have been held on the WSU campus for community colleges, at which certain WSU deans, department heads, admission officers, financial aid officers, provost staff, CLL, US/WCP, and other appropriate personnel have been in attendance. Such activities represent significant progress toward strengthening mutual respect and elimination of suspicion of two-year college curricula.

During 1986-87, the Director and Associate Director met with Deans of every major community college in the tri-county area (Oakland, Macomb, and Wayne counties). These discussions provided the foundations for articulation agreements, mutual cooperation in student advisement, and curricular understanding with reference to prerequisites and expectations. Future directions lead to the establishment of a formal community college task force, consisting of community college deans of technical areas and CLL-US/WCP administration. Such a group proposes and ensures (1) consistency of academic achievement, (2) direct input into the Capstone curriculum, (3) evaluation of curricular expectations, (4) greater appreciation by senior colleges of the technical student and his/her educational experience, (5) mutual exchange of ideas and personnel--including potential exchange of faculty and Academic Services Officers, and (6) ultimately, the preparation of a four-year curriculum by WSU and community college personnel in which a student enrolls for an A.A.S. degree with articulation that the final two years of upper-division work will be taken in US/WCP toward a B.G.S.-Capstone or a B.T.G.S. degree.

Finally, we admit insufficient progress with one of the most important aspects of the Capstone experience: articulation to and persuasion of the WSU faculty. Such a task is awesome because of the large number of individuals and because higher education arrogance is assumed more by instructional than administrative personnel. This fact demonstrates the urgency of administrative decisions based upon enrollment-driven budgets and the "sanctity" of academic prestige at whatever costs.

Our challenge for the immediate future is to meet with department chairs and faculty in every area affected by the Capstone program and organize discussions between US/WCP and community college faculty. Bias against technical degree holders cannot be eliminated by administrative decree or pure diplomacy; it must be phased out by persistent and informative demonstration of the value of the A.A.S. degree, both with respect to academic content and the presenting institution.

Notes

[1] Elting E. Morison, "The New Liberal Arts: Creating Novel Combinations Out of Diverse Learning," Change, 18:2 (March/April 1986), 7-8.

[2] Judith Axler Turner, "Bringing Technology and Liberal Arts Together," The Chronicle of Higher Education, March 4, 1987, 13-15.

[3] John G. Truxal, "Learning to Think Like an Engineer: Why, What, and How?" Change, 18:2 (March/April 1986), 12.

[4] Robert Kanigel, "Technology as a Liberal Art: Scenes from the Classroom," Change, 18:2 (March/April 1986), 20-27,30.

[5] Robert L. Carter and Roslyn Abt Schindler, "A Bachelor of Technical and General Studies: Building upon a Strong Foundation," The Journal of Continuing Higher Education, 35:2 (Spring 1987), 22.

[6] Carl E. Rollyson, Jr., "Capstone: The Community College - University Connection," Community College Review, 14:1 (Summer 1986), 40-45.

[7] Arthur W. Chickering and Zelda F. Gamson, "Seven Principles for Good Practice in Undergraduate Education," AAHE Bulletin, 38:7 (March 1987), 3.

[8] Rollyson, op. cit., pp. 42-43.

[9] Board of Governors, Wayne State University Official Proceedings, May 11, 1984, p.52.

[10] Ibid.

NON-TRADITIONAL PROGRAMS: THE PROGRAMS PEOPLE LOVE TO HATE

Colin P. Silverthorne

University of San Francisco

In reviewing the status of non-traditional programs around the United States, a dichotomous pattern appears to be emerging. On the one hand, universities with successful programs appear to be retrenching, replacing, and/or re-evaluating the role of such programs within the universities' mission. On the other hand, universities and colleges with shrinking enrollment are reviewing demographics and turning to deans and directors of adult education programs to "save" the university. It appears that in success there is danger, in failure there is extinction.

Sarason (1972), in his book, The Creation of Settings and the Future Societies, provides an excellent framework for the dilemmas facing the Deans of Continuing Education: "The creation of settings in any instance in which two or more people come together in new relationships over a sustained period of time in order to achieve certain goals" (page 1). Continuing Education Departments that have been created within the past ten to fifteen years represent such new settings. According to Sarason, these new settings are created because there are constant reminders that problems are occurring and that something new will take care of them. In education, one major problem is the decreasing number of eighteen year-olds and the changing demographics. The solution is to develop programs for adults and to develop continuing education divisions or schools to take care of the perceived problems. The anticipated response of administration and faculty is the generation of hope in some who believe change will occur soon and pessimism in others who view the world as they know it changing. At the same time, one or all of several feelings are experienced: skepticism about the outcome ("Will be gone in a year."); resignation to failure, or general anxiety about the future; and an underlying suspicion that the organizational situation is deteriorating.

Those who are creating the setting have a belief (fantasy?) that the point will be reached when all major problems will have been solved, all major goals achieved, and a conflict free future assured by the creation of the new setting. Sarason identifies several commonalities that arise from an existing organization of settings and many of these are applicable to Continuing Education Departments. The new division or department is different but part of the larger university setting. Each college views itself in terms of the other segments of the larger organization and in competition for the limited resources which necessitated the creation of the new department in the first place. This situation will exist whenever there are limited resources to share, when there are no agreed upon values strongly shared by all, and when decisions and planning are the perogatives of a very small number of people who perform these functions. In reviewing several universities that recently created extension programs, these decisions were frequently the sole decision of a recently appointed president. Not only do the majority of members of the university have no choice in the creation of the new setting, and, not only is it obvious to them that the limited resources will now be even further divided, but also, some will give up functions and resources to the new college, because it is expected that they will be performed better than when previously performed by other parts of the organization.

Upon the creation of the new division (setting), the response of the university in general is twofold:

1) a stated willingness to do more; and
2) a denial that it is in anyway responsible for inadequacies of the past.

This unwillingness to accept responsibility is blamed on the idea that adequate resources were never made available to do what needed to be done.

According to Sarason, the decision to create a new and independent setting usually reflects two considerations:

1) existing settings are in some way inadequate; and
2) awareness of conflicts that emerged in the process of arriving at a decision were of such strength and quality as to make a new and independent setting desirable and/or necessary.

It is presumed that the new component of the university would be able to generate decisions with a relative lack of conflict.

In summary, the creation of the new division has several characteristics which are common to all such new settings according to Sarason. These are:

1) The creation was based on the perception of a public problem, but not on external pressure, i.e., changing demographics is a national issue, but no outside organization or lobby is pushing for changing the clientele served.

2) The need for the setting as well as the decision to create it is, more often than not, that of a single individual who is leader of the organization, i.e., the decision will generally come from the president (often newly appointed).

3) There is a guiding idea that lends distinctiveness to the proposed setting, i.e., the perceived belief that existing

underutilized resources can be redeployed to serve a new clientele.

4) The competition between the new and the current university divisions is viewed as minimal, since they are theoretically serving different populations.

5) The chances of success are viewed as high because the new division is often outside the influence of the existing organization, which, because of its bureaucracy, would tend to dilute, subvert, or abort the goals of the new division, if it were part of the existing structure.

In general, a common characteristic of new settings emerges based on the perception of a superiority of mission and based on ideas or values with the clear implication that the new settings will be superior to the existing ones. For example, individuals see a problem due, in part, to existing modes of organization. Traditional class schedules prohibit working adults from attending classes. Since adults need education, even though they work, classes need to be appropriately scheduled.

Several issues are raised by Sarason's theories which provide guidance to those responsible for the choosing of the leader of the new division. He suggests that the more knowledge the leader has of the university and its history, the more smooth will be the implementation process, and the more successful will be the new setting in achieving its purposes. Second, choosing from within avoids the morale problems that occur when an outsider is brought in. Reality may well demonstrate this phenomenon. Twenty of the twenty-eight Jesuit schools in the United States that have created "New Settings" in the past ten to fifteen years and two other northern California universities all had first generation leaders appointed from within. While this may be due to necessity, because of the limited number of experienced individuals originally available, a pattern has developed and all but one, who were hiring a second generation leader, did so from within. In reviewing actions by these Jesuit universities and others, it appears that universities begin to go outside of the institution for third generation leaders.

By choosing the initial leader from within, the individual will be better able to confront problems in ways which will not interfere with achieving the purposes of the new setting and by alienating the existing structure. The choice of person needs more skills than traditional considerations of personality, competence, and ability. Unfortunately, the person is usually chosen by individuals who do not have the understanding of the special skills needed by the leader they are choosing, since there is no equivalent position or experience upon which to establish the base line of characteristics.

Once the decision is made to establish a new setting, several things begin to happen. The leader is given the mission to create something new and distinctive rather than duplicate what already exists and thereby change the way the existing structure of the university is perceived. The leader may be encouraged to depart from traditional operational procedures; (s)he may be treated differently or given special priviledges, all of which reinforce the leader's sense of separateness, protectiveness, and ownership of the new division. The leader is viewed by others in a variety of ways "with good wishes on the one extreme to death wishes on the other." (Sarason, page 194).

All aspects of an organization will go through a life cycle according to Sarason. The first state is the clear establishment of the existence of the new division as an improvement rather than as a duplication of what already exists. Secondly, the new division comes from an existing organization. Because the established university had little to say in the creation of the new division, and it was designed to overcome problems enmeshed in the current bureaucracy, it has little control over the new division or college. Given these first two factors, the creators of the new division are passionately committed to a set of substantive ideas considered both innovative and needed. Subsequently, internal resistance toward the new division will be experienced, and this galvanizes existing organizations both within the university and from outside the university, (e.g., accreditation bodies), into opposition.

As the new division develops, the challenges and novelty associated with its inception dissipate. Further, internal problems, (e.g., leadership communication, decision making, etc.) are inevitable and result in a loss of impetus. As a result, the new division, previously viewed as the answer to a myriad of problems, becomes institutionalized and threatened. The new division cannot solve the problems inherent in the remainder of the organization. Those problems, if not addressed simultaneously with the creation of the new division, will probably grow and become more difficult to resolve.

Indeed, if the new division is initially extremely successful, it will allow the university to avoid dealing with the problems; and time will probably make solutions more difficult. As the problems become more difficult to solve, those responsible in the existing organization look to the new division with a mixture of threat and envy. Further, the success of one division, while others struggle, can serve to make those leaders responsible for the decline feel as if they are failing as leaders by comparison. This comparison can result in negativity being directed to the new division and its leader. Failure to respond appropriately can coalesce the original organization against the newcomer resulting in the division's shrinking or elimination.

In order to maximize the effectiveness of the new division, one strategy is to utilize the rationale for its development (i.e., develop outside of existing structures) to create new programs which can later be transferred and integrated into the existing organization when appropriate. The strategy has been successfully followed at the undergraduate level with a Bachelor of Fine Arts conducted in cooperation with an outside institution and a graduate program in Environmental Management. While not all programs are suitable for transfer, and new programs are not solely developed to avoid dealing with existing structures, this approach can integrate and achieve many of the objectives underlying the creation of the new setting.

The challenge of the new division then is to meet the goals for which it was established within the university. The probability of success depends on the leadership of the new division, the extent of the university's ability or willingness to deal with the underlying problems, and the pressures within the relevant educational community.

References

Sarason, Seymour. The Creation of Settings and the Future Societies. Jossey-Bass, San Francisco, CA (1972).

ARTICULATION OF PROPRIETARY SCHOOLS AND COLLEGE: A MODEL

By
Terrance Dunford
Cuyahoga Community College

Drive down St. Clair Avenue from East 9th Street in downtown Cleveland, Ohio, to suburban Euclid and you will see a portrait of economic urban life: large factories, small specialty shops, sub-contractors, jobbers, suppliers, corned-beef delis, the union hall, and (often specialized) proprietary schools. They all depend upon each other, and they all contribute to the productivity and adaptability of Cleveland's industry. Let me not be accused of avoiding the obvious: proprietary schools are looked down upon by colleges. In the eyes of many college administrators and faculty, proprietary schools are declasse. They do not even have basketball teams. What they do have, inconvertibly, though is the pressure of the market place. Unsubsidized by public funds, proprietary schools rely totally on student tuition on one hand, and long-range stability by providing satisified employers on the other. The market place is a stern mistress, and the longevity of a proprietary school is no small measure of educational quality and the recognition that what it supplies is a needed commodity.

Serving metropolitan Cleveland, Cuyahoga Community College (CCC) recognizes that cooperation with area proprietary schools and other deliverers of postsecondary education will benefit the College far more than the haughty isolation some colleges wear as a mantle of justified aloofness.

The competition a community college has with proprietary schools and apprenticeship training is minimal. Their students choose to forgo non-technical education, and as a comprehensive community college, we choose not to offer purely technical programs. To compete for their students, we would have to alter our academic structure radically at the cost of losing students to other community and four-year colleges. Further, the specialized nature of proprietary and apprenticeship training often precludes the College from competing programmatically. Rather than compete for students going in, we can offer college opportunities going out. One way CCC has demonstrated its willingness for cooperation is the establishment of the Associate of Technical Study degree.

The Associate of Technical Study or ATS degree was designed by the Ohio Board of Regents to allow two-year community and technical colleges in the State to respond quickly to industry's need for trained workers. As unique training needs are identified, CCC may combine courses from several technical diciplines offered by the College to shape a hybrid degree specifically designed for a particular industry, or for that matter, a particular student whose needs transcend the current technical degree program offerings at the

College. Hence, should a person in an electronics firm find him-or herself faced with responsibilities of purchasing, the student can tailor shape an Associate of Technical Study degree in electronics purchasing, combining courses from CCC's heretofore distinct electronic and purchasing associate degree programs.

Further, the ATS degree encourages the College to seek technical training resources available in its service district. Where technical training already exists, CCC has no need to expend time and money in developing a technical curriculum and setting up a delivery system. Rather, the College may collaborate with proprietary schools, apprenticeship councils, and business and industry to provide the technical portion of the degree requirements, usually about half (or one year) of the two-year degree program. Cuyahoga Community College, in turn, provides the non-technical courses. Together, students achieve an associate degree awarded by Cuyahoga Community College. From the Ohio Board of Regents' point of view, cooperation between public and private postsecondary institutions provides a cost-effective way to meet the constant emergence of new and costly laboratory training facilities.

Cuyahoga Community College has an articulation agreement with ten proprietary schools and four apprenticeship councils. The ATS degree is an important part of an area-wide training network, the aim of which is to provide a coordinated, cost-effecive, systematic delivery of technical training and career ladder planning. A major benefit of the ATS degree is the formal linking of proprietary schools and other deliverers of postsecondary training with the community college. The ATS degree allows for public-private partnership that demonstrates cost-effective training while avoiding unnecessary duplication of training programs and facilities. Both the student and the taxpayer benefit from a cooperative venture which provides skilled workers in an increasingly complex and ever-growing technical workplace.

Articulation is achieved between the public community college and proprietary institutions through a process of shared information and the building of trust and confidence. It proves helpful in the process to have the separate proprietary schools act in unison through the professional organization, the Northeastern Ohio Chapter of Private Colleges and Schools, that provided leadership and representation for the proprietary schools. It was agreed with them that mutual standards should be established and accreditation be a factor in developing articulation. Among the standards sought in selecting programs that can best be transferred to the two-year colleges were the following:

- o structured curriculum: a sequence of instruction of a length of time adequate to provide training

- o methods of evaluation: a system employed to measure students' accomplishments

- o education accomplishments: an established educational goal that leads to an academic award or other established achievement level

- accreditation: recognition by an authorized national body of accreditation

- student records: the institution can provide Cuyahoga Community College with transcripts of students' academic and training accomplishments at that institution

Curriculum is reviewed by CCC faculty and staff of schools requesting transfer supply documentation to meet the above standards.

Accreditation standards of both the community college and the proprietary schools are defined by the Council on Postsecondary Accreditation (COPA) which recognizes both Northcentral Association of Colleges and Schools (NCA), which accredits Cuyahoga Community College, and the National Association of Trade and Technical Schools (NATTS), which accredits the participating proprietary schools. This "third party" accreditation is extremely helpful in establishing assurance of mutual academic standards.

With a partnership focus rather than a competitive focus, the community college and proprietary schools serve students two ways:

Proprietary schools and apprenticeship training uniquely provide:

- Skills training
- Training in equipment intensive technology
- On-the-job and hands-on training
- Placement
- Specialized and often unique curriculum

Community college instruction provides:

- Diagnostic testing
- Developmental education in mathematics and English
- Analytic and communication skills
- Human relations, managerial skills, psychology, sociology, and humanities
- Theory
- Career guidance
- Awareness of arts and literature

Since 1985, a total of fifty-eight students have enrolled in the ATS program. Twelve have graduated with the ATS degree.

In Ohio, we are fortunate to have the state higher education commission, the Ohio Board of Regents, endorse cooperation between private and public postsecondary training. I would encourage two-year colleges to investigate various ways to accept credit and offer shared associate degree programs with proprietary schools and apprenticeship councils. Participating proprietary schools have utilized CCC's diagnostic services and developmental instruction; their students, in turn, can work towards an associate degree through the partnership between CCC and the technical school.

Eugene Ionesco's irreverent and sometimes enigmatic comedy, *The Bald Saprano*, contains a scene of a man and woman who strike up a conversation only to discover a number of seemingly remarkable coincidences.

MR. MARTIN: Excuse me, madam, but it seems to me, unless I'm mistaken, that I've met you somewhere before.

MRS. MARTIN: I, too, sir. It seems to me that I've met you somewhere before.

MR. MARTIN: Was it, by chance, at Manchester that I caught a glimpse of you, madam?

MRS. MARTIN: That is very possible. I am originally from the city of Manchester. But I do not have a good memory, sir. I cannot say whether it was there that I caught a glimpse of you or not!

MR. MARTIN: Good God, that's curious! I, too, am originally from the city of Manchester, madam!

MRS. MARTIN: That is curious!

MR. MARTIN: I reside at No. 19, my dear lady.

MRS. MARTIN: How curious that is. I also reside at No. 19, my dear sir.

MR. MARTIN: Well then, well then, well then, well then, perhaps we have seen each other in that house, dear lady?

MRS. MARTIN: It is indeed possible but I do not recall it, dear sir.

MR. MARTIN: My flat is on the fifth floor, No. 8, my dear lady.

MRS. MARTIN: How curious it is, good Lord, how bizarre! And what a coincidence! I too reside on the fifth floor, in flat No. 8, dear sir!

MR. MARTIN [Musing]: How curious it is, how curious it is, how curious it is, and what a coincidence! You know, in my bedroom there is a bed, and it is covered with a green eiderdown. This room, with the bed and the green eiderdown, is at the end of the corridor between the w.c. and the bookcase, dear lady!

MRS. MARTIN: What a coincidence, good Lord, what a coincidence! My bedroom, too, has a bed with a green eiderdown and is at the end of the corridor, between the w.c., dear sir, and the bookcase!

MR. MARTIN: How bizarre, curious, strange! Then, madam, we live in the same room and we sleep in the same bed, dear lady. It is perhaps there that we have met!

They discover, by the end of their dialogue, that they have been married to each other for twenty years.

The lesson is clear: bourgeois marriages induce apathy, and we tend to take each other for granted. There is another lesson as well: while there is a plurality of postsecondary deliveries of technical education, each representing a different approach and a different educational philosophy, there remains much in common to provide a source of cooperation.

1781w

USING FOCUS GROUP RESEARCH TO DEVELOP A MARKETING PROGRAM FOR AN ADULT EDUCATION PROGRAM

Al Rosenbloom, MA, MPH[1]
Nancie Thole, RN, EdD[2]

Abstract

Focus groups are a qualitative research tool that have had limited use with adult learners. Focus groups allow marketers to probe the motivations of adults for returning to school, to explore the barriers that prevent adults from returning to school and to understand which schools adults view as competitors and along what dimensions. Armed with this information, program administrators can write tightly focused and well-targeted marketing plans.

INTRODUCTION

As time passes, schools, colleges, universities and other educational institutions increasingly recognize that they face marketing problems. Preeminently all types of educational organizations are faced with declines in student enrollment and increased competition from neighboring institutions.

Educational organizations can respond to these changes in many ways. One response is to do nothing and hope that the golden days of education, when the baby boom supplied ample numbers of entrants, will return. This is unlikely to happen.

A second response is to expand one's promotional efforts. Educators who take this route often reason thusly: "The reason for our reduced enrollments is that prospective applicants just don't know us. If they did, then they would actively seek us out. Consequently, we must vigorously promote ourselves." Promotion can be important in helping boost enrollment. But whether by itself it serves as a long-term strategy for gaining a competitive advantage in the marketplace is doubtful.

A third response considers applying marketing principles to the situation at hand. Marketing has one central premise: that the consumer or purchaser of a service is the central focus of all organizational activity. Only people can enroll in a university, can use a professional service, or consume a product. Marketers study consumers' behavior. Since attitudes, opinions, beliefs and perceptions are either precursors or direct correlates to behavior, marketers explore these areas in-depth.

As in the commercial world, educational programs face competition. The most commonly understood competitive arena is between institutions offering the same programs and the same terminal degrees. Yet competition also exists in individual decisions about how to spend one's time - both free and work-related. This form of competition continually confronts educational marketers who target adult and life long learners. Work, family, friends and personal time demands also influence how, when and which educational decisions are made.

---

[1] A & R Consultants, 411 S. Sangamon, #7A, Chicago, IL 60614
[2] MEC Associates, 7766 Forest Hill Rd., Burr Ridge, IL 60525

To be successful in this competitive environment, educational marketers must:

1. understand the multiple forms of competition as seen from the adult's viewpoint; and
2. have a well thought out, action-oriented plan for motivating adults to enroll.

In marketing, nothing sustainable happens by chance or luck. Two tools that are invaluable in helping educational marketers achieve these goals are focus groups and a marketing plan.

FOCUS GROUPS

A focus group is a group dynamic session in which a moderator leads eight to twelve people through a free-flowing, in-depth discussion. Focus group discussions are energetic and often punctutated with divergent opinions. This dynamic interchange between individuals leads to the "mental popcorning" which is characteristic of a well-run focus group.

By expressing feelings and reporting on actual behaviors, focus group participants provide marketers with a rich verbal picture of consumer motivations, actions and attitudes. This information helps educational marketers design programs that are totally in synch with the natural ways the target market behaves -- another aim of marketing.

Focus groups also are an invaluable aid in developing marketing communications programs. Group discussions provide a linguistic blueprint of the target market's language and phraseology. Communications with an authentic feel to them can be created by mirroring the language expressed in the group.

Furthermore, in a competitive marketplace, just letting consumers know that "we are here" is an inadequate approach for reaching enrollment goals. It is a passive and limited recruitment strategy. As the private sector knows, the images, perceptions and opinions consumers hold of the product, the business, and its competitors influence a purchase decision. The same is true in education marketing. Enrollment (ie., purchase) decisions are influenced by both the images, attitudes and perceptions of the sponsoring academic insititution and its competitors. Focus groups are an excellent way to explore these images and perceptions.

Finally, focus groups help prevent the biases that often result when educators design programs based on their intuitive or "expert" understandings of the market. Through focus groups, educators can verify their premises. Sometimes, marketers find the target market behaves in unexpected or "illogical" ways. When marketers make such discoveries, they have uncovered the true value of focus groups: the discovery of new market related information that is not readily accessible through other research methods (for example, a questionnaire).

THE SITUATION NEEDING MARKETING ACTION

The Regional Access to Nursing Education (RANE) Project is a part of the College of Nursing at Lewis University. Lewis University is located in the far southwestern corner of metropolitan Chicago. The RANE Project is designed to serve adult nursing students who lack ready access to the University's main campus in Romeoville, IL. RANE delivers regular university courses and related support services at four off-campus sites in the metropolitan area. In 1984, the RANE project wanted to market its degree completion program at a new off-campus site in an affluent county adjacent to Chicago.

Methodology. Before developing its marketing program, the Project decided to run two focus groups with adults in the target area. Twenty-three individuals participated in the two groups. Ages ranged between 24-65, the the majority (n=6) between 35-39. Twenty-two individuals were female; one was male.

The focus groups had four objectives:

1. To probe adult motivations for returning to school;
2. To explore the barriers that prevent adults from returning to school;
3. To evaluate competitor schools; and
4. To assess various school's recruitment literature.

FOCUS GROUP FINDINGS

1. Focus group participants were confused about the value and purpose of the academic degree they sought.

2. Individuals were frustrated because schools lacked uniform transfer of credit policies.

3. Convenience outweighed tuition as a key determiner in selecting a school.

4. Anxieties around poor or dormant study skills were barriers to enrollment.

5. No school in the market was perceived as the market leader in degree completion programs.

6. Recruitment literature from local schools was viewed as impersonal, jargon-laden, repetitive and undistinguished.

7. No school had a distinctive image.

DISCUSSION

A key focus group finding (and a surprise to Project administrators) was participant confusion about the real value of the sought degree. Adult nurses were being pressured by professional organizations, educators and employers to complete the BSN. A BSN was a mandate for entry-level positions. Thus, practicing Registered Nurses, who were no longer at entry level, had difficulty perceiving the relationship between administrator and educator dictates and their nursing practice. A common response was, "Show me the relationship between required course work and the practice of nursing....how will this degree make me a better nurse?" Marketing efforts must directly answer this question, since the targeted adults are clearly seeking answers to it.

Focus groups helped answer the question: What key factors determine whether a student will enroll in one school over another? The answer, in part, was that convenience was more important than tuition. In a very real sense, time is money. Thus, the site locations of courses, the travel times to and from these sites to work and home, and the time of day courses are offered become critical marketing elements in successful program design.

Credit transfer policies evoked strong negative comments. Focus group members felt frustrated because of perceived inconsistencies between schools in accepting previously earned credits. Adult nurses often had their previous course work evaluated by at least two schools. In the prospective student's mind, it was a simple matter of evaluating School A against School B. What students found was that credit transfer policies varied greatly. Marketers should highlight credit transfer policies. Promotional literature along with student advising should explain what previous course credits are acceptable and why added course work might be needed.

Focus group members wanted program and school information presented in an objective, factual manner. They wanted to read, in easy to understand terms, exactly what the school's course of study entailed. These individuals did not appreciate, nor did they tolerate, vagueness, inconsistencies and program/course descriptions that had semantic meaning only to those privileged individuals who held the interpretive code to the language used.

Returning adult students also were concerned about their adequacy as participants in a formal class and, as such, were anxious about competing with younger, more academically savvy students. The lack of recent class room experience and nervousness about loss of adequate study skills were commonly expressed fears. Marketers must recognize that these perceived threats may be strong enough to keep students from entering or remaining in a program.

Finally, many adults attribute their success to the acquisition of intrinsic motivation. Most significantly, focus group members said "the degree is important to how I feel about myself." Marketers must recognize that returning adult learners need to have personal clarity and motivation in order to sustain their efforts and achieve success. Both faculty and staff should show appreciation of the knowledge acquired during students' earlier life experiences. As one participant said, "Pay attention to who I am and respect what I've done!"

THE MARKETING PLAN

Marketing plans offer the best vehicle for organizing the institution's responses to focus group findings. The RANE Marketing Plan was a written statement giving rationale and outline of all marketing activities for a given year.

Focus group findings shaped three major marketing goals:

1. To create a Project graphic identity program;
2. To use language expressed by focus group participants in all Project promotions; and
3. To develop a hierarchy of recruitment strategies targeted to the adult learner.

Identity program. A critical marketing challenge was to fill the void in adult learner's minds created by weak and ill-defined degree completion programs. Project administrators reasoned that a well-formed, distinctive and bold identity would break through the perceptual defenses adults used to screen out most institutional promotional messages. The identity program's aim was to create a visual look immediately identifiable with the Project and to do so in a visual style that mirrored personality characteristics of the targeted adults.

Based on the focus group research, the RANE Project created the following identity program. Because adult learners were:

- ° Unimpressed by extra frills, the Project logo was a cross made up of small squares.
- ° Serious minded, the type style was classic type face.
- ° Approached by up to eight competitor schools, a strong purple ink was chosen to create boldness and marketplace distinctiveness.
- ° No nonsense decision makers, graphic layout was kept simple, with ample amounts of white space surrounding the text.

Consumer oriented language. Avoiding the impersonal and jargon-laden writing style of most recruitment literature was another important strategic decision. Program brochures were rewritten. Second person case was used throughout. This personalized the message and allowed readers to see themselves in the situations being described. For example, in a section describing the adult learners who enroll in the Project, the brochure read:

> "Our students have a strong desire to develop themselves personally and professionally. They want their education to broaden and challenge them.
>
> Our students value their technical skills and have demonstrated their competence in clinical situations. They want instructors who treat and respect them as professionals.
>
> Our students also value their time, since going to school still means finding time for work, for family and for themselves."

Hierarchical strategies. Recruitment strategies used the theory that consumers go through various stages of information processing as they make an enrollment decision. Key marketing tasks were to

1. Create awareness that a new off-campus site was opening in the county;
2. Generate interest in this particular degree completion program;
3. Create a compelling reason to enroll; and
4. Reinforce the decision to enroll as correct.

The relationship between these items can be graphically seen as follows:

TARGET GROUP	PRIMARY MARKETING TASK
All adults in county	
Adults interested in further education	Reinforce value of adult education
Adults interested in short courses	Refer to other schools
Adults interested in degree completion	Create value of degree completion
Adults actively looking for a program	Create awareness of RANE Project
Adults aware of RANE	Use a one-on-one approach
Adults who enroll	Reinforce RANE as the right choice

What's different about the recruitment model outlined above is its hierarchical approach to marketing strategies. This segmented approach substitutes for the mass market approach frequently used. In this latter approach, one, all-encompassing marketing strategy is created. Broad-based promotional activities are aimed at the largest number of individuals in the target market. Numerous mass mailings characterize this approach, and there is generally no coordinated strategy to move individuals from one level of interest and motivational intensity to the next.

Targeted adults are seen as being in one of two categories: They are either interested or not interested; they either enroll or they don't. While such approaches can create and generate awareness, they fall short in providing the specific motivational cues adults need to move from being just generally interested in a program to actual enrollment.

The RANE Project successfully used the hierarchical approach. Specific strategies and tactics were developed for each market segment in the above model. The aim was to move adults from one level to the next.

Program results. Based on a direct mail campaign to 9,367 adults in the targeted county, 434 (4.5%) requested project brochures. Of those requesting brochures, 184 (42.4%) requested an enrollment packet. And from this group, 24 new students enrolled in the Project the following semester.

FROM EDUCATOR TO COMMUNITY PARTICIPANT: RECRUITING ADULT STUDENTS USING COMMUNITY NETWORKS

Susan English
Sterling Heights Center
Wayne State University

Sharon O'Brien
Southfield/Livonia Centers
Wayne State University

Wayne State University is one of the country's most distinguished research institutions. It's location in the heart of Detroit's cultural center allows for a strong urban commitment. As the university bulletin states, "Wayne State University has the obligation to serve in the several capacities of teaching, research and community service." Over 28,000 students are enrolled in 300 undergraduate and graduate programs from the university's thirteen schools and colleges.

The university's College of Lifelong Learning (CLL) is responsible for the extension programs, overseeing nine full-service centers in the metropolitan area with an enrollment of over 6,000 students each term. Each center is staffed by a full-time center manager and provides instructional and support services. The centers offer a variety of credit and noncredit, graduate and undergraduate programs weeknights and weekends.

In the credit area, graduate programs include business administration, education, library science, nursing and social work. Undergraduate programs include business administration, education, fine and performing arts, liberal arts, social work, urban, labor, and metropolitan affairs, as well as CLL's own University Studies/Weekend College program. Programs specifically designed for associate-degree-holders who want to complete baccalaureate coursework are offered in engineering technology and nursing. In addition to attending these classes at a center, students can also opt for telecourses.

Noncredit programs are offered in such areas as entrepreneurship and small business management, money management and financial guidance, personal computing, creative and cultural enrichment, professional continuing education and certification, and personal development and enhancement. Many courses can be taken for continuing education units and are endorsed by professional organizations or agencies.

Students can take advantage of center support services which include assistance with registration, advising and referral. Each center is equipped with a computer lab regularly staffed by a consultant to assist students enrolled in credit courses requiring computer usage. The WSU bookstore sells books and supplies during the first week of classes at the centers.

Many institutions encourage upper echelon-administrators to participate on boards of directors and blue-ribbon committees; however, too often, these efforts are not translated into activities which enhance the institution's daily living in the individual environments it serves. While such activities are of vital importance, it is of equal importance for center staff to become involved in grass roots programs.

At Wayne State University, one of the primary functions of the center manager is to take an active role in the community where each center is located. Each manager develops programs which are as diverse as the area served; however, a common thread weaves the activities together - - a commitment to being as responsive as possible to the educational needs of each area and a dedication to representing the broad spectrum of university resources available. One method helpful in integrating the center into the community is utilizing existing community networks. These networks can include:

-- Chambers of commerce
-- Human and social service groups
-- Professional organizations
-- Local school districts
-- Government agencies
-- Labor unions
-- Cultural and ethnic organizations

This paper will concentrate on two areas of community involvement: chambers of commerce and cultural and ethnic organizations.

The Sterling Heights Center is located twenty-five miles northeast of the main campus, and is one of two extension centers serving Macomb County. The center is located in the seventh fastest-growing community in the country. The region is experiencing a colossal increase in its business and residential populations. Companies located in the area include Chrysler, Ford, General Motors, Volvo, Volkswagen of America, General Dynamics, and TRW plus a plethora of related smaller businesses and support organizations (financial institutions, retail centers, health care facilities, etc.)

The Wayne State University Downriver Center is located in Southgate, about eighteen miles south of the main campus. The Downriver area encompasses seventeen separate communities, with each one being a unique entity, but also with each city sharing in a common goal, that of promoting business and cultural growth throughout the entire region. There are several large industries Downriver, including major steel companies, Mazda, and the Ford Rouge complex, which is one of the largest of its kind in the world. Because of the heavy industry and because the recession in the early 80 s hit especially hard in the Downriver area, the region has been battling a negative image. The various communities have been pulling together in a united effort to create a new business and cultural climate. Their efforts are beginning to pay off; real estate is booming; unemployment is down and new businesses are starting up in the area.

Both the Sterling Heights Center and the Downriver Center have developed strong relationships with the chambers of commerce in their respective areas. Both managers sit on the boards of directors and are chairs of the education committees of the respective chambers. These chambers have histories of leadership and activism and are committed to bringing together all the segments of the communities which affect business. These segments include local school districts, community colleges and universities as representatives of the educational network; local, county, state and federal governmental agencies; hospitals and human service organizations; and residents.

Numerous opportunities are available for community involvement with regard to the chamber. Initially, the Sterling Heights manager and the Downriver manager joined the chambers and began to attend regularly scheduled functions, such as breakfast meetings, luncheons and forums. The beauty of the situation is the ease - simply attend pleasant functions once or twice a month - and listen. The managers then began to utilize the chamber resources: business mailing lists and labels, directories, demographic data, community calendars and the newsletter for promoting university activities. Space is also made available in the chamber offices for various university materials.

The chamber staff and memberships provide support for university programs. Last year CLL had to decide which of its centers would be best for the installation of its Personal Computing Center (PCC). The Sterling Heights manager and the PCC coordinator contacted the chamber for data to support installing the PCC at her center. Not only was data provided by the chamber but letters of support came in from business and community leaders who are chamber members. The PCC opened in Sterling Heights in February, 1987.

Requests for specialized courses (credit and non-credit) and offers of co-sponsorship are other ways in which the chambers support the centers. Classes for small business owners, personal development and money management are especially well-received. The chambers assist with the development, design and implementation of many programs held at the centers.

A natural evolvement of membership in the chambers is to become a resource -- make it a partnership. Although one person cannot provide the broad spectrum of services that the chamber does, center staffs can supply access to the resources of the university. Center managers and staff must be well-versed in university programs and services available to the community and must understand the importance of translating these resources in order to meet individual needs. This can be as simple as providing an expert for a speaking engagement or as complex as assisting in the writing of a grant.

Finally, the center managers are active participants on their chamber boards and committees. Board membership allows the center managers to participate in the decision-making processes of the chambers. It also provides more visibility and calls for more participation and time. The benefits far outweigh any drawbacks. Board members are kept abreast of current events and issues facing the area and are active in developing positions and policies. Chairing the education committees plugs the managers into the education network, which provides insight into existing programs and services. Therefore, Wayne State has been able to build upon the success of other institutions' programs. The members of these networks were able to learn about WSU's programs and, in some instances, were able to provide input in developing and marketing specific courses and programs.

Involvement with chambers of commerce supplies the university with insights into the real world of work. Commitment to cultural programs can take the university beyond the bounds of the traditional classroom. Both managers have cooperated in the development of cultural events in the communities in which their centers are located. This commitment can take many forms.

The Downriver Center manager is a member of the Downriver Council for the Arts, a non-profit organization that promotes culture and the arts throughout the area. Wayne State and the Council have jointly designed and implemented an ongoing series of noncredit creative art classes for all ages. This cooperative effort has drawn 300 students over the past two years and has provided a much needed service to the Downriver communities. Classes have included watercolor, sculpture and drawing; a mime workshop; seminars for writing grants for arts programs; a folk art series; and a storytelling festival, all taught by Downriver artists or university faculty. The university and the Council collaborate on all aspects of the program, sharing income and expenses.

The Sterling Heights Center offered a credit course in introductory Polish this fall. This was in response to a request originating from members of a local ethnic organization. The course was offered to augment activities surrounding the Pope's visit. The center also co-sponsored the city's Summerfest - an annual weeklong festival of the arts.

These are two examples of ways in which outreach personnel and programs can not only make the university more visible but can also improve the quality of life in the communities served. There are many mutual benefits, such as establishing close working relationships with the memberships of these organizations, whether they are community leaders or residents. The sharing of resources, from mailing lists to brainstorming program ideas, is an added attraction.

In our efforts to keep our fingers on the pulse of a community's educational needs, it has become imperative that center staff become active in the communities where centers are located. Whether these efforts are as simple as attending an art fair or as complex as assisting the local chamber of commerce staff in writing a grant proposal, each center manager is receiving valuable input about the nature of the community and its needs. It then becomes simpler to tailor marketing campaigns, course programming, and available services at any given center to the specific requirements of the community. The message to the community is not only that we're there, but that we care.

TEACHING REFLECTION: THE GRADUATION ESSAY

Lenore Burgard, Academic Adviser
Program for Individualized Learning
University of Minnesota

Reflective learning has long been the normative ideal of institutions of higher learning. Critical thinking, reflective appraisal, integrative reasoning have been sought through highly diverse structures and processes. However, the universal struggle has been to develop a useable, consistent, and equitable method to adjudge when an institution has been successful in developing these abilities (or this ability) in its graduates.

The Program for Individualized Learning came into being at a time in the history of higher education when the dream of transforming colleges and universities into creative, vital catalysts of social and intellectual change seemed far from utopian. Then named University Without Walls, the Program grew out of the UWW movement of the sixties. It included the seven key components characterizing most UWWs:

1. a broad array of resources for teaching and learning
2. flexible time units for learning
3. individually designed programs without fixed curricula
4. a broad age range of students
5. preparation of students for self-directed learning
6. use of community experts as part of the instructional staff
7. new assessment procedures to include both students and staff

It went further than most in abandoning the use of credits and grades to measure progress or achievement. Its first handbook noted, "However [grades and credit points] are added or averaged, [they] do not yield a satisfactory measure of education."

By eschewing this traditional measure, the Program set itself the task of finding a more appropriate method to assess whether a student is learning, what a student has learned, and when a student has reached a level of baccalaureate achievement. The first 50 students admitted during the Program's pilot stage assisted in defining and developing the graduation essay that became known as the "Statement of Readiness to Graduate." This statement is the core of the student's graduation dossier, which also includes narrative evaluations of independent study, of directed research and readings, and of prior learning that has been achieved outside the classroom. In the early efforts to construct a flexible, dynamic framework for the bachelor's degree, the outline of the student's curriculum was frequently included in this Readiness Statement. Within a few years, this outline became a separate document called the Degree Plan, but continues to be a part of the total dossier.

Initially, the dossier was evaluated only by a graduation committee, consisting of the student's Program adviser, two faculty advisers, a faculty representative of the Program's governing council, and a UWW student. Although the same committee structure is used today to review the dossier, a preliminary review committee has been added, greatly strengthening and regularizing the graduation process. This committee is made up of the Program adviser, a second academic adviser from the Program, the Program's faculty director, and the student's area specialist from the University of Minnesota faculty. This preliminary appraisal reflects the fact that we have learned (to the painful discomfort of ourselves and our students) that Program advising/teaching relationships become so close, that by the end of a student's progress toward the bachelor's degree it is impossible to be wholly objective.

Since curricular requirements are not specified in terms of courses or credits, from the beginning the Program has defined curriculum only by general standards called graduation criteria. These criteria originally were deliberately focussed primarily on the process of learning:

- self-directed study skills
- communication skills
- academic achievement in one or more areas
- understanding of how the area(s) of study relate to the broader contexts of man, society, and the natural world
- skill in a variety of study approaches

As advisers and students struggled to create sound academic programs that were based on a liberal arts foundation it became clear that a somewhat more explicit set of criteria was needed. By 1974, criteria more clearly defining aspects of the liberal arts but still emphasizing the learning process were adopted:

- self-directed study skills
    - a. question -asking ability
    - b. resource identification and use
    - c. rationale development
    - d. self-evaluation
    - e. student as primary initiator
- communication skills
- academic achievement
    - a. historical and contemporary core literature of field
    - b. main theoretical concepts
    - c. use of basic methods of investigation of field
    - d. relationship of field to concerns of society
- variety of learning
- scientific inquiry
    - a. understanding differences between objective and subjective knowledge
    - b. knowing philosophical foundations of science
    - c. understanding the experimental paradigm
    - d. awareness of how science relates to the student's world

- artistic expression
    - understanding the artistic process as expressed in the fine arts
- major project
    - the student's contribution to his area of study

While these criteria highlighted the Program's continuing concern with creating lifelong learners and with recognizing learning acquired outside the classroom, they tended to produce graduation essays that were often pretentious, verbose, and redundantly written. After years of debate and extended deliberations of a faculty-staff-student task force, a new, more specifically content-oriented set of criteria were developed and approved in 1980;

Depth Criteria: Area of Concentration

- Primary Area Studies
  - familiarity with the basic literature and vocabulary of the field
  - knowledge of its main theories and methods of investigation
  - ability to use the skills of the field
  - awareness of its relationship to contemporary and future society
- Major Project
  - culmination of study reflecting a substantive understanding of the fields
- Supporting Area Studies (for B. S. candidates only)
  - knowledge that complements and expands on the primary area

Breadth Criteria: Liberal Arts

- Social Science/Own Culture
- Social Science/Other Culture
- Literature
- Fine Arts
- Physical and/or Biological Sciences
- Mathematics and/or Logic
- Foreign Language and/or Linguistics

The value placed by the Program on the learning process is preserved in the preface to the formal criteria, which directs the student to strive toward certain characteristics and abilities:

- oral and written communication skills
- self-directed learning
- perception of specific and general learning goals
- formulation of meaningful questions
- identification of appropriate resources
- information analysis and conclusion drawing

- understanding perspectives from different fields
- evaluation of educational experience
- integration of areas of knowledge
- demonstration of intellectual maturity and sophistication
- knowledge of one's own attitudes, values, and feelings, and awareness of those of others

While these criteria provided a better base for constructing the degree plan, they also relieved the student of responsibility of using the graduation essay to demonstrate mastery of the liberal arts. The purpose of the essay became: the individual's to reflect on baccalaureate experience; to pull together the disparate strands of her/his knowledge into a coherent pattern; and; to demonstrate the student is thinking and writing at a clearly baccalaureate level. However, each student in the Program was still individually confronting the design and writing of this significant document.

As the Program matured it developed group teaching strategies for the degree plan, research and writing, and project design; a workshop for graduation preparation was also introduced. Originally an all-day weekend workshop, it seemed more productive when structured into a four-meeting seminar, giving students time to read, reflect, and write.

The seminar has several goals. One is to introduce the students to the genre of the personal, reflective essay. A second is to teach students to criticize each others writing effectively. Another is to stimulate their active participation in the decision they must make as to their individual approach to their statement. And, not least, the seminar attempts to teach them how to use criticism creatively as well as for inspiration, motivation, and improvement.

With confirmation of their registration in the seminar, we usually send a syllabus (see appendix) and an essay designed to generate examination of the concept of the bachelor's degree. In recent years we have been using remarks made by William G. Bowen, president of Princeton University, at opening exercises in fall of 1984, titled "Capturing Otherness." He asserted, "Given broad definition--to encompass not only other times but also other cultures in our own time, other disciplines, other groups within our own society, and other individuals within one's own group (however specified)--an appreciation for 'otherness' is central to the very idea of a liberal education."

These materials enable the first evening to have a common content focus. The beginning session also helps students think about which of the approaches suggested by our handbook may prove most advantageous to them. Although students are not restricted to the options the Program proposes, discussing these is a starting point: 1) a comprehensive examination of the area of concentration--its history, current status, and future directions--and an understanding of ways the area relates to issues in society; 2) a thematic essay reflecting a major component or issue critical to the area of concentration; 3) a chronicle of the student's growth and development related to the area of concentration in personal, professional, and academic terms.

Throughout the weeks of the seminar, students are expected to meet with their own Program academic advisers and their own faculty area specialists to individualize the general group discussions to their specific focus. Prior to the second meeting students are asked to read three sample statements of readiness produced by graduates in the past. They are given study questions (see appendix) to aid them in analyzing the samples. They are also asked to write a brief introduction to the discussion of the liberal arts they will later include as a section in their graduation dossier. As they are writing an introduction to a piece that does not as yet exist, they are given carte blanche to be as free-wheeling as they like, with a clearly stated acknowledgement that it will probably be drastically revised or possibly discarded.

The second meeting focuses on learning how to criticize, first the sample graduates' statements, and then each other's. We, as seminar leaders, try to guide students into critiquing style as well as content, logic as well as values. We have found it necessary to adopt intentional strategies to overcome the midwestern reluctance to vocalize negative reactions. When we began our critical exercises, participants were intimidated by published, respected authors. When we asked them initially to respond to each other's writing, they were reluctant to risk hurting a fellow-student's feelings. By introducing them to criticism, by providing the kinds of questions and issues to consider, and by forcing them to apply these to materials from students who had successfully completed graduation but were strangers and absent from the seminar, they were freed from paralyzing constraints of kindly politeness. Once they had asserted judgmental opinions out loud of substantial documents that had been approved by the University through its review mechanisms and that were undoubtedly the third (or thirtieth) draft, it became acceptable psychologically to offer comment on half-page first drafts from others in the seminar.

For the third meeting, students are asked to read and critique well-known essayists and to produce an overall personal introduction to their graduation dossier. We usually use only three essayists and those chosen have ranged from Jacob Bronowksi to Alice Walker, from Alex Haley to Virginia Woolf and George Orwell. Students are encouraged to read very critically, to examine likes and dislikes in style, and to perceive the permutations possible in the personal essay. At this meeting students exchange copies of their dossier introductions for discussion at the final meeting.

By this final meeting, students are able to give and receive critical commentary with some aplomb and minimal discomfort. It is interesting that students who begin the seminar denying that they have any critical faculties whatsoever frequently become the most helpful and insightful critics of others work and, ultimately, of their own.

The last seminar meeting also is used to elicit student evaluations of the seminar. This is partly a check-off and partly open-ended and has been used to refine the structure and content of the seminar. As students are generally in a glow of euphoria at completing the seminar and, hence, gaining comprehension of the graduation process and momentum toward completing their degree work, their evaluations of the usefulness of the seminar as a whole and the competency of the teaching are less helpful, being invariably skewed toward the high positive end of a valuation scale.

We as a staff have found that participation in the seminar aids immeasurably in our individual work with students who are approaching the graduation process. The seminars do not replace one-to-one tutoring/mentoring as each student prepares her/his individual dossier; rather, these augment, supplement, and enrich this undertaking. As most of our students are adults with professional backgrounds who come into our Program with above-average writing skills, the eight to fourteen students in the seminar themselves contribute greatly to each other, bringing multiple perspectives to critique and enhance each other's ideas and prose style.

As part of the seminar students are given two sets of questions to consider as they review their own and other participants' programs (see appendix). One is the evaluation questions used by the preliminary and final graduation review committees as they read and make judgments about the graduation dossier. The second is a list of typical graduation committee meeting queries. As can be readily seen, both lists are based on the Program's principles and criteria. Using these as guides, students approach the required analysis reflectively and the graduation committee scrutiny with a certain confidence that they understand the parameters within which they will be judged.

While our entire Program is geared to produce critical thinking and reflective learning, most graduates report that it is the rigorous process of the seminar and the dossier preparation that finally hones and solidifies these abilities, explicitly crystallizing their attainment. In a survey of our graduates done in 1983, the graduation process was the most commented upon component of the Program, drawing a three-fourths positive response; higher for more recent graduates. Among baccalaureate outcomes we hoped for in graduates cited by survey respondents as perceived benefit from the program were; 88.3% noting an understanding of their own abilities; 79.9% improved ability to write clearly, correctly, and effectively; 61.2% preparation for further education. Indeed, 60% have gone on to graduate school. (Hendel, University of Minnesota, 1984)

Overall, our graduation process is an intensifying of the total baccalaureate education for our students. It works well for our small (under 200) population of selectively chosen students. It indeed enhances the predisposition to lifelong learning as our graduates show a much higher level of post-baccalaureate study of all kinds than other graduates of the University of Minnesota. Perhaps most importantly, the resulting dossier enables very traditional faculty accustomed to dealing in the educational _lingua franca_ of credits and grade point averages, to review our students' independent, active learning and recognize its comparability to other baccalaureates. In an historical era where higher education is distinctly backing away from many of the ideals and visions of 20 years ago, this preserves a viable, vital option that was built on those visions.

GRADUATION PREPARATION SEMINAR

SPRING 1987

Session 1 Tuesday, April 6

- Introductions and expectations
- Review of Handbook chapter on graduation
- Discussion of process and timelines
- Reflection upon the baccalaureate

Assignment: Review sample statements.*
Read Handbook graduation chapter, focusing on pages 6:4 and 6:5.
Write ½-1 page introduction to your discussion of the breadth criteria; make copies for class.

Session 2 Tuesday, April 21

- Compare and discuss sample statements
- Review personal options for statements
- Brainstorm individual approaches to statements
- Share and discuss breadth criteria introductions

Assignment: Read assigned essays.*
Reflect upon style, voice, word choice, organization, use of paragraphing, sentence and phrase variation, etc.
Write 1-2 pages of introduction to your graduation dossier; make copies for class.

Session 3 Tuesday, April 28

- Discuss sample essays
- Review writing mechanics
- Distribute copies of dossier introductions

Assignment: Read dossier introductions and prepare a written or mental critique for group discussion.

Session 4 Tuesday, May 5

- Discuss dossier introductions
- Evaluation of seminar

* Sample statements and essays available at Kinko's, 305-15th Ave.
under UC 3291, Burgard

SAMPLE TIMELINE FOR GRADUATION PROCESS

	Weeks to planned graduation	Activity
	20	Review your degree plan and criteria summary against graduation checklist. Discuss your status with your academic adviser. Review Chapter 6 in your UWW Handbook.
	19	Begin seminar or meet with your academic adviser to discuss the statement of readiness.
	18	Formulate plan for statement of readiness; begin drafting outline or introduction. Request consolidation of your transcripts.
	17-16	Continue shaping your formulation and writing your statement.
loop back as necessary	15	Complete your first draft and submit to your academic adviser.
	14-13	Revise statement of readiness based on adviser's comments.
	12	Submit final draft of statement to your academic adviser; if given approval,
	11	Assemble dossier for preliminary review. (If necessary, take care of any additional adviser recommendations.)
	10	Obtain consolidated transcript and narrative transcript. Present three copies of dossier for preliminary review.
	9	File official degree application.
	8	Wait patiently.
	7	Review results of preliminary review with your academic adviser.
	6-5	Make recommended changes in your dossier.
	4	Assemble final dossier.
	3	Submit five copies of dossier for final review.
	2	Wait patiently.
	1	Meet with graduation committee.

Study Questions for Reading the Statement of Readiness

1. How did the opening paragraph of Jean Thompson's Statement affect you? Is Jean Thompson's personal history integral to understanding her program? How else might she have approached her description of her Area of Concentration? Does she exhibit appropriate academic objectivity? Her dossier Introduction and Statement of Readiness run 86 pages; is this too long? Where might she have cut? Is her discussion of the breadth criteria as strong/as well written as her Area of Concentration discussion? As she writes primarily straightforward declarative sentences, how does she achieve the variety necessary to retaining the reader's interest?

2. What was the way Craig Swabolski went about defining his Area of Concentration? How does this differ from Jean Thompson's? Why do you think he did so? Does Craig Swabolski seem to have reflected on his field of study in the same way that Jean Thompson did? Do you think this is a function of differences between Family Social Science and Journalism, between Jean Thompson and Craig Swabolski, or a deliberate stylistic choice?

3. Do you find Peter Wells statement more like Jean Thompson's or Craig Swabolski's? Why? Were the technical sections difficult to read? To understand? Why or why not? Did Peter Wells' discussion of the breadth criteria satisfy you? Did you find his explanation of his Readiness Statement organization helpful? Did you learn mostly about the student or mostly about the field?

4. Which of these students gave the account most satisfactory to you of the methodology by which studies were pursued? Which the least? Which style did you find most: clear, readable, enjoyable, convincing, informative ? Did you feel you had "met" the author in reading any of these; that you would want to meet the author?

SAMPLE GRADUATION QUESTIONS

The following questions are included to suggest some fruitful lines of inquiry for the graduation meeting. The discussion is often wide-ranging and should not be limited by these questions; they are intended merely as possible points of departure.

1. What do you feel were the most important parts of your education?

2. How do you think differently, or see the world differently, because of your studies in the liberal arts?

3. What aspect of your liberal arts studies was most helpful?

4. What part of your studies for your area of concentration was most significant? How did that study affect you?

5. In what ways have you been able to meld theory and practice?

6. What changes would you now make in your degree program? Specifically what might you change in your area of concentration?

7. Why did you select the Program for Individualized Learning to complete your education? What did the program provide that was especially meaningful?

8. In what areas do you think you need further work?

9. What are your areas of greatest strength?

10. How do you see your education relating to your future goals?

EVALUATION QUESTIONS
for Preliminary and Final Review

The questions that follow present a comprehensive picture of the evaluation of the materials submitted at preliminary and final review.

The first three basic questions are applied to the evaluation of all degree plans and dossiers:

1. Does this dossier present college-level academic learning?
2. Does this dossier indicate general parity with other baccalaureate programs in similar or related study areas at the University of Minnesota?
3. Does this dossier satisfactorily meet the UWW breadth and depth criteria?

In the context of these basic questions, a number of more specific ones can be raised, as appropriate, addressing such considerations as the amount, variety, and integration of learning and the adequacy of evaluation and documentation:

1. Are the writing skills acceptable?
2. How much learning is represented in the dossier, including projects, fieldwork, coursework, prior learning, etc., and what is its scope?
3. a) Does the dossier indicate that the student is sufficiently knowledgeable about the area of concentration?
   b) Does the title of the area of concentration accurately reflect and represent its content?
4. Are the relationships of the learning to all criteria made clear?
5. Is there balance among ways of learning? Is applied learning balanced with theory?
6. Is there a collective sense of a community of qualified evaluators? (Preliminary Review only.)
7. Is the documentation of learning sufficiently clear and persuasive?
8. Does the student demonstrate understanding of the structure and

concept of a baccalaureate degree?

Several questions addressing a students' academic abilities should be considered during preliminary and final review:

Does the student demonstrate the ability to:

- Analyze information and draw conclusions?
- Evaluate educational experiences?
- Develop relationships and integration among areas of knowledge?
- Does the student demonstrate a sense of intellectual maturity and sophistication?

CURRICULAR STANDARDS FOR REVITALIZATION PROGRAMS FOR MID-CAREER PROFESSIONALS

Merl Baker

Center for Professional Career Enhancement

University of Tennessee at Chattanooga

July 15, 1987

Abstract

The author has advanced a concept for a retraining voucher to be included in severance packages which larger employers often offer to encourage early retirement of mid-career and older professional employees. The voucher would be redeemable only if the early retiree enrolled in a revitalization program with quality curricula directed toward a second professional career. Setting standards for the quality of curricula is a major problem in the implementation of the voucher concept. This paper addresses this important issue and proposes criteria and measures.

Overview

During the summer of 1985, the author studied the employment status of mid-career and older college graduates through visits and interviews in sixteen cities in eleven midwestern and southern cities. Significant numbers were found to be unemployed, underemployed, and prematurely retired. The study concluded that a meaningful percentage of these could be revitalized for enhanced or new-second careers through intense and focused retraining programs leading to a certificate rather than another degree. Other groups of mature college graduates who could benefit from these types of programs include normal retirees aspiring to a second career, professionals employed in uninteresting jobs, and professionals afield. For example, many women with college degrees are presently employed in sub-professional jobs with little promise of enhancement.

The author has developed methodologies to penetrate the barriers confronted in revitalization programs. Barriers relate to selecting student-participants, designing and delivering retraining curricula, and reemployment. Curricular design is confronted by a most formidable barrier because of the resistance of higher education to non-degree certificate programs. Curricula must be designed to bridge the gap between the experiential knowledge of student-participants and the requirements for new and enhanced jobs. Master's degrees will serve the needs of some, but a majority require intense and customized non-degree curricula. These requirements have been stated succinctly by Drs. Jarold Keiffer and Alan Pifer in the November, 1983, and February, 1985, AAHE Bulletins.

The methodologies include a concept for a retraining voucher to be included in severance packages which larger employers offer to encourage early retirement of mid-career and older professional employees. The voucher would be redeemable only if the early retiree enrolled in a revitalization program with quality curricula directed toward a second professional career. This plan is described as being more beneficial to retirees than many of the provisions presently offered, and may be favorably received by employers if adequate control can be placed on the quality of revitalization curricula approved. The voucher plan has commonweal value since reemployed college graduates render significantly enhanced contributions to society and the national economy.

The paper describes generically the types of curricula necessary to bridge the gap between existing experiential knowledge and that required for more productive careers. Also discussed are controls for approval of programs necessary to protect the interests of both individuals and employers. The most important measure of the quality of a revitalization program is the extent and level of reemploym ent and job enhancement of those certified. A major national organization is necessary to set approval standards and certify these to both employers who pay for redeemed vouchers and retirees who pursue revitalization.

Background

The March 1986 report of the National Science Foundation Board, NSFB, Undergraduate Science, Mathematics and Engineering Education, reflects a paradox of what is expected of higher education and what it is capable of delivering. Regardless of the expediency of higher education's response to graduating young scientists and engineers having the qualifications described by the NSFB as being necessary for the U.S. to regain its previous leadership position in the global economy, competent and experienced managers who understand the technology for which they are responsible are essential to their effective utilization. Therefore, beyond providing the strong, technically qualified scientists and engineers advocated by the NSFB, higher education must also enhance curricula to produce the future managers needed.

Unfortunately, neither objective is likely to be met soon and attention must be directed toward short-term solutions rather than attempting quick fixes. Retraining experienced professionals to become managers and specialists in other career-fields in demand is believed to be an essential short-term objective within the nation's broad efforts to achieve international competitiveness. The methodologies described subsequently address a short-term solution to an urgent and important generic problem confronting many academic disciplines.

Determining the qualifications necessary for revitalized, mature college graduates to become effective in careers currently in demand is believed to be a formidable task and new ground must be plowed through in-depth research. Barriers have been identified which impede revitalization of mid-career and older college graduates, but the author has proposed previously how these can be overcome. The first step in the process is to ascertain the availability of an adequate number of strong candidates who may be motivated toward second careers in certain specialties and select as candidates only the ones having the greatest promise for success.

The author's recent studies reveal that if those in the group of college graduates who have elected early retirement are considered as the only hypothetical source for the sample, the numbers are sufficiently large to enable adequate screening to select trainees with a strong aptitude. A brief review of these observations is pertinent.

"Early Retirement," by Selwyn Feinstein in the January 9, 1987, Wall Street Journal highlights statistics from the General Accounting Office report of 1983, (the last year for which data are available), which reveal that 1.9 million people between 55 and 61 received pension benefits. This represents 17% of the men and 7% of the women in the population in this age bracket, but the fraction of professionals was not indicated. With the dramatic increase in early retirement since 1983, the author estimates that today more than 25% of the white-collar workforce between 55 and 61 are inactive or seriously underemployed. Including those between 61 and 69 and under 55 who are adversely affected, the number of inactive and marginally productive professionals is believed to be as high as two million.

Recent reports in business and financial journals of job reductions in professional employment reveal a three year loss of up to 33% in some industries. The economic loss to individuals is clearly evident, but the collective loss of productivity to the nation's efforts toward international competitiveness may be even more serious.

In the summer of 1985,the author visited sixteen cities in eleven states in the Midwest and South to study the employment status of mid-career and older white-collar workers. Interviews were conducted with community leaders concerned with economic development, officers of professional societies, and individuals. The initial study did not contemplate collecting data adequate to evaluate statistically the degree of inactivity or level of productivity. However, it is evident from these observations that large numbers of our most highly trained professionals are adversely affected.

A conclusion of this study was that viable second careers are essential to regain the productive contributions of this large sector of highly trained and competent people. Masters degrees can meet the needs of some and traditional continuing education programs can serve a few more, but for the majority, revitalization for second careers requires non-degree certification programs which are direct and intense.

The author is familiar with on-going successful complementary reentry programs, including: a) Arizona State University, directed by Professors Richard Smith and Mary Anderson; b) San Diego State University, directed by Dean Celia Marshak; c) The University of Denver, directed by Dr. William Charland; and Memphis State University, directed by Dr. Arthur Chickering. The UTC/CPCE aproach is unique in several respects and the voucher concept is an important one.

Although the economic outlook for many mid-career workers--or recent workers--is bleak, the psychological consequences are also of serious concern. Not only are many workers in this age group lagging in their personal economic and psychological preparation for their older years, but their early retirement jeopardizes the potential for them to make future leadership and economic contributions toward the solution of society's problems and, subsequently, helping the nation restore its previously strong competitive position.

Large numbers of mid-career four-year college graduates are available to be screened and selected for retraining for second careers currently in demand. The present and future demands for professionals in selected fields is much greater than the projected supply of new college graduates. Qualifying those mature and experienced professionals who are presently inactive or marginally productive for second professional careers simultaneously boosts the efforts of the U. S. toward regaining competitiveness and enhances the economic well-being of groups of individuals.

Barriers

Barriers confronting revitalization programs for second careers have been identified as follows:

a) insufficient self-motivation of individuals to seek out and enter retraining programs;

b) reluctance of higher education to develop focused and intense programs to meet urgent needs;

c) reluctance of employers to hire people with experience outside of their industry.

An effective revitalization program must be attractive to the best qualified individuals in the pool of potential student participants, and must satisfy new employers that experiential knowledge from earlier careers has been supplemented sufficiently to qualify certificate holders for the new work desired. The voucher concept is perceived to be a strong motivator because the contingent severance benefit is redeemed only if the holder is enrolled in an approved revitalization program.

The first step has to be taken by higher education. Drs. Jarold A. Kieffer and Alan Pifer addressed this in the November, 1983, and February, 1985 issues of the American Association for Higher Education Bulletin:

> Dr. Kieffer: Few higher institutions view the 55 year old as a candidate for further education or career preparation. Like other societal institutions, they have written off the older person as a serious contender for jobs for which fresh academic credits or preparation are needed. Colleges traditionally have defined their role primarily in relation to post-high school youth. More recently, they have recognized "adult learners" as a legitimate market, though the people they have in mind most likely are in the 25 to 45 age bracket.
>
> Dr. Pifer: If older people, 50 or beyond, are going back to higher education for job related purposes, they want that experience to be intensive. It can't be long, drawn out and filled with a lot of things that from their point of view are peripheral. They need that education or training quickly; they want it concentrated and related to a goal they have, and they probably need help getting back into the labor force promptly.

Revitalization of displaced and underemployed engineers for second careers as managers of technology requires the team effort of employers, government, and higher education; but higher education must be the initiator and catalyst.

UTC/CPCE Methodologies

Methodologies have been developed to address motivation/selection, design of non-degree retraining programs, and reemployment. The voucher concept for severance packages is believed to be a major motivator for individuals to pursue revitalization programs. The methodologies require that retraining programs bridge the gap between present experiential knowledge of a group of individuals and requirements for new career pursuits. Non-degree certificate programs are deemed to be major contributors, but accreditation of these is much more complex than for traditional masters degree programs. Unless the standards of certificate programs are high and guaranteed, employers will be most reluctant to introduce the proposed voucher benefits into the severance package . Accreditation of these non-degree certificate programs will be valuable in persuading new employers that the gap between the new and old has been bridged.

The author has studied the value of short-term non-degree certificate programs as effective educational programs to bridge the gap between experiential knowledge of mid-career and older professionals and requirements for jobs in new fields. Although masters degrees can bridge this gap for many, the non-degree certificate programs are advantageous for others--perhaps for the majority. The Center for Professional Career Enhancement, CPCE, has been established at the University of Tennessee at Chattanooga to provide customized retraining programs for displaced mid-career and older professionals to serve as complements or alternatives for traditional masters degrees in various disciplines.

The author's 1985 surveys suggest that overspecialization is the major contributor to individuals being targeted for early retirement and falling victim to underemployment, rather than deficiencies in technical competence. To meet both the quantity and demand for career fields of current and future importance, all six groups identified by the author's 1985 survey should be considered; the early-retiree group is believed to be the largest source of candidates. An important research objective in the methodology for selecting candidates is to determine those with the best potential for success for each new career pursuit for the various groups of candidates based on their experiential knowledge foundation and personal characteristics.

Reemployment of those completing revitalization programs initially will have to be based largely on the mutual confidence between employers and educational institutions. When successful job-performance has been demonstrated, reemployment resistance is expected to weaken. The methodologies address initial techniques for penetrating the reemployment barrier.

Refinements in educational programs designed, delivered, and tested are expected and will require continual evaluation of the performance of retrained professionals placed in new or enhanced jobs. The assessment of performance will compare achievements relative to parameters considered in the various tasks leading to reemployment. The level of the job offered those completing retraining options will be an initial measure of the overall effectiveness of the process. However, the rate of advancement and measures of comparative performance will be necessary to prove the viability of particular retraining programs and the relative importance of the various parameters incorporated in the model.

Types of Retraining Programs

Previous research indicates that a majority of the mid-career professionals aspiring to enhanced or redirected careers prefer non-degree certificate programs to a masters degree. The time frame is a factor but greater deterrents are the fear of failure in a degree program and skepticism that it can meet perceived needs. Customized programs have a greater flexibility to focus on the specific needs of the new job being sought.

CPCE has been structured to tap faculty talent from several of UTC's academic departments and other campus entities such as the Center For Computer Applications. It has the flexibility to employ faculty temporarily from other educational institutions and adjuncts from business and industry as needed to focus onto specific objectives. A primary advantage of CPCE as an entity to design and deliver successful revitalization programs is derived from its being a part of the University, but not rigidly bound by academic tradition. The freedom to study, propose, design, develop, and deliver innovative programs will help eliminate the peripheral hurdles addressed by Drs. Keiffer and Pifer.

Customized programs designed to revitalize student-participants to qualify for new careers in demand will require a combination of college level courses, specialized seminars/workshops, and internships. The particular combinations of program components and the distribution of faculty by types of experience will vary to meet best the requirements of a specific program option or objective. Seminar leaders will be respected professionals in their fields and on occasion highly visible national leaders will be sought.

Proposals emanating from reports of governmental commissions and published articles on how the U.S. can meet international competition better must be monitored while designing revitalization programs and interpreted for the benefit of potential reemployers of revitalized professionals. A number of highly visible engineers and scientists have proposed changes necessary for the U.S. to regain its position of leadership in the international competitiveness race. The author agrees with the following:

Dr. Nam P. Suh, Assistant Director For Engineering, National Science Foundation:

> Tradition also framed our Nation's response in the past when we tried to nurture scientific and technological advances. We were guided by a view that for the engineering infrastructure to be strong in this country, the major emphasis has to be on analysis, engineering sciences, and traditional engineering disciplines. Only recently have we come to understand that although that view has served us well in the past, we now must have a proper balance between analysis and synthesis, between analysis and experimentation, between cross-disciplinary research and single-investigator research, and between research in traditional engineering sciences and emerging engineering fields. We must continue this break with tradition, particularly as it applies to strengthening engineering design and cross-disciplinary research.

Dr. Roland W. Schmitt, Senior Vice President and Chief Scientist, General Electric Company:

> The objective is not to reduce the emphasis on learning the fundamentals of engineering but, rather, to ensure that the engineer knows how to use those fundamentals and is motivated to satisfy his customers and clients, not just himself and his technological colleagues.

These views are further corroborated by the following statements in the Spring 1985 issue of the Tau Beta Pi Bent:

Dr. Myron Tribus:

> The present [management] system does not work. Our

survival depends upon changing it.

Dr. Donald N. Frey:

> We need a reservoir of well-trained scientists, engineers, and technicians who will translate the fruits of basic research into useful products.

The author accepts the often stated views of experts of what is needed for the U. S. to reclaim its former position of strength in the world economy. Certainly, higher education has a major role in achieving this objective, including graduating technically qualified scientists and engineers, but doubts arise and linger that traditional programs can be adapted rapidly enough to meet short-term needs. A plan is offered for a short-term solution to the problem through the revitalization of now dormant and marginally productive, but highly experienced, college graduates through non-traditional educational programs. These customized programs must be accredited for them to have universal credibility.

Voucher Concept

Because of rapid shifts in the global economy and technological changes, displacements and early retirements are expected to continue at a high rate for sometime. Mid-career and older workers must not be treated unfairly in implementing reductions-in-force necessitated by these changes. Although age discrimination could be a consequence, the author has not discerned overt actions in studying the policies and practices of major U.S. corporations. However, to achieve fairness for both younger and older workers, under the normal retirement age, differences are necessary in the retirement options because of the greater difficulty older workers encounter in finding new professional jobs.

The author has developed a concept for a retraining voucher as a viable component of severance packages and mutually beneficial to the employer and employee. The concept proposes that vouchers be awarded to mid-career and older workers only, as a benefit in severance packages, and redeemable only if or when recipients enroll in an approved retraining program directed toward a second career.

The voucher would be provided whether the package is designed to encourage voluntary-early retirement or is one-time compensation for a necessary reduction in force. By giving older workers an additional contingent benefit, employers escape any inference of age discrimination, build morale among employees retained, and meet a special need of separated older workers. Costs are incurred by the employer only if the separated worker redeems the voucher. This plan should be especially attractive to professional workers and probably should be limited to them. Displaced sub-professional workers usually have benefits from federal programs for retraining in contrast to professional workers.

For the voucher concept to be adopted, employers must have some perception of the contingent cost, and affected employees must have information on the demands placed on them if they redeem the vouchers and the probability of reemployment after retraining. A research plan has been designed to make these determinations.

Changing attitudes and trends toward retirement support the views expressed that not only people who are displaced or retired early from long-standing jobs, but also many others over the normal retirement age of 65, aspire to extended employment. For reemployment aspirations to be realized, employment practices of most large employers discouraging hiring from other industries will have to be modified, and candidates must pursue retraining to bridge the gap between their experiential knowledge and requirements for the new job. New employers must be convinced that the retraining, indeed, achieves this essential objective.

A statement in the September 4, 1985 Federal Register succinctly states a major problem facing both early retirees and society:

> The rapid growth of our older population and the projection for its continued growth make it imperative that society, institutions, families, communities, and individuals prepare themselves for an aging society.

Evidence abounds that these warnings are being overlooked by institutions, corporations, government, and individuals. Reemployment of displaced and early-retired workers is not only important to their personal well-being, but especially to society collectively because of the need for both their extended economic and leadership contributions. The contribution to the regional economy by restoring the productivity of dormant and marginally productive mid-career and older professionals is significant. This benefit to society along with other commonweal contributions of the voucher concept extends its value well beyond the advantage to individuals.

Job displacement and early retirement are major deterrents to economic growth. Extended employment or reemployment of professionals leverages jobs for others. Also, professionals are the policy and decision makers and if their numbers continue to decrease in the workforce, the loss of maturity will be detrimental to both employers and retained younger employees. Continuing or enhanced productivity of mid-career professionals is essential to their personal preparation for the aging society, but perhaps of even greater importance, is their continued contributions to the general well being of all workers and to society collectively through leadership.

The voucher concept is only one of several parameters which has the potential to help both individuals and institutions prepare better for the aging society, but it is an important one. If both individuals and employers agree that the benefits envisioned are mutually advantageous, it can be implemented in the short-term.

Accreditation: A Major Hurdle

Early retirees will not know the value to themselves of severance vouchers for retraining unless they can review offerings at institutions which have been approved for redemption. Employers will not consider the concept affordable unless strict criteria for approval are established and enforced. Approval for master's degree programs would be straightforward by limiting them to accredited graduate level institutions, but planned limitations appear necessary for all other programs.

Since the voucher concept is advanced initially to benefit only employees holding a four-year, or higher, college degree, required levels of retraining are predetermined to an extent, but not completely. Perhaps only accredited four-year institutions should qualify for approval for voucher redemption for non-degree certificate programs. However, the concept would not be acceptable to retirees, potential reemployers, or employers offering severance packages if any and every revitalization program offered by a generally accredited four-year institution were approved for voucher redemption.

The author has identified more than twenty growth fields which appear promising for second career pursuits for mature professionals. Perhaps this list will grow as success is gained through reemployment in the ones identified and as new demands emerge. The new field being pursued has to be compatible with the experiential knowledge of each candidate, and retraining programs have to bridge the gap between present knowledge and that required for the future career. For example, an engineer pursuing a second career as a high school science teacher will require a different program than one seeking a second career as a product quality manager. A middle manager with a degree in business administration aspiring to a career as a community college teacher will require a different retraining curriculum than an industrial chemist with similar second career aspiration. Accreditation of customized programs becomes quite subjective and probably is more complex than general accrediting of an institution.

Because of the complexity of the evaluation of customized programs, a knowledgeable and credible accrediting organization is essential. The subsequent steps in the process would require the identification, interest, and commitment of a credible existing accrediting agency or organization. Next would be the establishment of a continuing board to be responsible for accreditation of special programs offered for early retirees. The board would consist of representatives from larger industries potentially interested in providing voucher benefits, educators, retirees, and representatives of promising reemployers. AARP could be an effective representative of potential retirees.

On the basis of guidelines established by the board and accepted by the responsible accreditation organization, each four-year institution interested in a program would submit its plan for approval. Research is necessary to find an interested and committed acrediting organization and establishing procedures for selecting the board. Perhaps Alliance/ACE would consider providing this service. From this point forward, the process would follow usual accreditation procedures.

Questions will be raised about the rationale for limiting vouchers to four-year college graduates and training programs to four-year institutions. Leaders of some two-year institutions will argue appropriately that their institutions can design and deliver retraining programs as good, if not better, than many four-year institutions. Potential retirees not holding a four-year degree may charge discrimination. These probable criticisms are understandable and must be addressed.

The voucher concept is deemed highly beneficial to society and this collective worth may outweigh greatly the value received by individuals. Reemployment of professionals leverages jobs for service workers. Existing government programs provide retraining opportunites for subprofessionals, but few, if any, opportunities are now open to four-year college graduates.

Potential reemployers will have to be solidly convinced that the retraining being accredited clearly bridges the gap between present knowledge and future requirements. Since retrainees will fill positions which otherwise would have been filled by fresh college graduates, their being retrained by the same institutions which graduate entry-level professional specialists is most important in helping penetrate the reemployment barrier. If the voucher concept proves successful with a restricted group of retirees retrained in the same class of institutions which graduated them originally, its expansion to a larger diversity of participants and retraining institutions would be likely. If the scope is unwieldy broad initially and failure occurs, future implementation is unlikely even for the most promising combination of participants and institutions.

Criteria and Measures of Quality

The most powerful measure of the quality of a curriculum is the percentage of candidates selected for and completing a program who are readily reemployed in viable second-career jobs. This may be the only necessary criterion for reaccreditation, however programs must be designed and implemented before quantitative reemployment data become available. The second most important criterion appears to be the management plan. A well-designed management plan must be in place to overcome the educational barriers cited earlier by Drs. Keiffer and Pifer. The past achievements of an institution in delivering non-traditional educational programs to benefit special groups and its commitment to innovation are essential to a strong and focused retraining program.

The willingness of an institution to reallocate resources from dormant programs, credit and non-credit, to support a proposed retaining program is essential to its success. The academic qualifications, experience, and commitment of the program director and the staff are also important. An appreciation for the value of experiential learning is essential. A thorough understanding of the requirements and expectations of reemployers is necessary to design revitalization programs which can bridge the gap between present knowledge and future demands. The proposed accreditation board for these special programs can be expected to have additional criteria for quality, and since new members will join the board at planned intervals, review and updating of criteria are expected.

Conclusions

Early retirements are expected to continue at a high rate for sometime into the future. Retraining and reemploying inactive and marginally productive college graduates for viable second professional careers is essential to the preparation of early retirees individually for the aging society and especially beneficial to society collectively.

Barriers are encountered in pursuing second careers which relate to selection, retraining, and reemployment. Many of those best qualified for second careers lack self-motivation to pursue opportunities.

A strong motivator would be a voucher as a component of the severance packages offered by the employer and redeemable when the retiree is enrolled in an approved retraining program for a second professional career. Program approval is essential to the acceptance and implementation of the concept.

An accreditation institution with a program review board is required to establish guidelines and review and oversee institutional requests for approval. All constituents involved in the implementation of the voucher concept must be represented on this board.

Quality standards have to be set in judging the strength of proposed programs. The most powerful measure is the relative success of candidates in becoming reemployed, but initially more subjective criteria have to be applied.

CURRICULAR INNOVATION IN GRADUATE PROFESSIONAL EDUCATION: THE BALANCE WITH LIBERAL LEARNING

Jean W. Knoll, Ph.D., School for New Learning, DePaul University
Catherine Marienau, Ph.D., School for New Learning, DePaul University

The Master's program in DePaul University's School for New Learning offers a unique option in professional education, the Master of Arts with a Professional Concentration. While much attention is currently being paid to the need for liberalizing professional education, the experience of the Master's program has led us to the conclusion that simple exposure to the liberal arts, without explicit focus on the intellectual and reflective skills which derive from liberal education, does not automatically lead to increased intellectual competence and broader perspectives. Rather, the program has come to use the traditions of liberal education to focus on the development of specific intellectual, interpersonal, and reflective skills essential for excellence in professional performance, rather than on the content of the liberal disciplines *per se*.

THE SKILLS FOCUS

The competence-based curriculum of the Master's program consists of two parts, each framed by a set of competence statements called Mastery Criteria. The Professional Concentration is an individualized program of professional study designed to meet the needs of the experienced practitioner. The Common Curriculum consists of a series of liberal learning colloquia, designed to develop those intellectual skills and perspectives which lie at the heart of liberal education. The Liberal Learning Mastery Criteria, by which student performance is assessed, focus on problem-framing and problem-solving, written and verbal communications, decision-making, interpersonal facility, and ethical development. Thus, the program has held from its beginning that the development and refinement of the Liberal Learning Skills, rather than engagement with the content of the liberal disciplines, is the primary purpose of the Common Curriculum.

Our first colloquium series focused on topics which cut across the liberal arts disciplines; titles included "The Political Economy of Liberal Democracy," "Value Analysis in Decision-Making," and "The Humane Professional." Faculty were encouraged to emphasize the development of the Liberal Learning Skills through classroom discussions, outside readings, and brief written exercises. We hoped that this interdisciplinary approach, coupled with references to and assessment for the Liberal Learning Skills, would re-focus the colloquia on skills rather than on content. Equally as important, we believed that students would be able to relate these broad, cross-disciplinary topics to their specific fields of professional study, thus providing for transfer of these skills and perspectives to professional settings.

Almost immediately, we learned the fallacy of these assumptions. First, while the interdisciplinary topics of the colloquia had indeed transcended the boundaries of the liberal arts disciplines, they had not succeeded in breaking away from a dominant focus on content, rather than on the Liberal Learning Skills. They continued to be mired in the traditional liberal arts approach to learning, which treats the development of intellectual skills as a by-product of exposure to an intellectually serious topic, to be developed within each student in an almost ad hoc way. Moreover, we learned that students were not able to make the connections between the colloquia and their Professional Concentrations because they too were focused, not on the generalizable skills of liberal learning, but on the content of the colloquia. The promise of greater intellectual, interpersonal, and professional facility because of this exposure seemed to them vague at best, and more often the kind of academic mumbo-jumbo of which they were the most skeptical; "This was a nice history and literature class," wrote one student in evaluating "The Humane Professional," "but it did not teach me anything about professionalism."

It thus became clear almost immediately that, if the purpose of the Common Curriculum was indeed the development of the Liberal Learning Skills, then these skills must be built into both the process and the content of the colloquia. In our current revised version of the Common Curriculum, the skills are the focus of the activity in the colloquia: "Communications for Professionals," "Group Process in the World of Work," "Models for Change," "Valuing Human Differences," and "Ethics in the Professions." At the same time, the content links topics and skills to provide students broader perspectives on the world of work and a forum to practice specific applications. As a result, the classroom is much more of a skills-oriented workshop in which exercises, simulations, and students' own experiences play a central role. Outside readings are designed primarily to give students of various backgrounds a common vocabulary, or to acquaint them with reference works to which they can later refer.

ASSESSMENT

We believe that assessment is the critical key to helping students apply and integrate the Liberal Learning Skills with their professional contexts. We use a developmental approach to assessment that emphasizes regular feedback on consistent criteria and students' engagement in self-assessment of their learning and performance. Assessment thus becomes both a process and a skill which enables students to become effective managers of their own learning and adequate judges of their own performance.

In keeping with our goal of making assessment an integral part of the learning process, students are assesed every four to five weeks (at the end of each colloquium), as they work with different instructors on increasingly complex subject matter in diverse contexts, for the development of the Liberal Learning Skills. Students also do self-assessments using the same criteria and evidence as the instructors.

It has always been apparent to us that faculty need to be cognizant of the melding of the Liberal Learning Skills with their particular content area and to assess students for developing mastery of these skills. What has struck us over the past two years of this program is how powerful an instrument for learning is self-assessment. We have growing evidence that when students share responsibility for their assessment, they become more conscious of what they are learning and how they are using that knowledge or skill.

During the second year of the program's pilot phase, we decided to highlight self-assessment through a special colloquium. The Learning Skills Assessment Colloquium meets at three different points during the students' first year in the program. The focus of the first session is on students' definition and understanding of the Liberal Learning Skills and on awareness of their functioning in the contexts of work and school. The focus of the second session is on students' ability to differentiate among the facets of the Liberal Learning Skills, to specify how they function in different settings, and to transfer skills across various learning environments. The focus of the third session in on students' integration of the Liberal Learning Skills--their ability to recognize the connectedness of the skills and their effect on students' professional perspectives and performance.

The twelve students in Cluster Three completed the second session of the Learning Skills Assessment in June, 1987. At this stage, it is expected that they are intentionally applying the Liberal Learning Skills to various professional situations. They are asked to articulate what connections they are making and with what results. All the students in Cluster Three were able to cite ways in which they were actively applying these skills to their work settings, and they were able to identify specific improvements in their performance.

Students report using their skills in Active Learning, for example, to "resolve my computer illiteracy," to "critique consultants' proposals for new computer systems," to "understand the effects of new tax laws on corporate services and properties," to "investigate the nature of the resistance of corporations to services for employee-parents," and to "piece together a management training program for myself in an adolescent company."

One student writes of her Ability to Frame and Solve Problems that this ability,"...admittedly my weakest area, also comes into play nearly every day when managing several computer systems and a staff. My favorite of these situations is computer trouble-shooting. When experiencing a computer problem, I liken my situation to that of a doctor diagnosing a patient. The computer system, if one examines it methodically and with attentiveness, shows the symptoms one needs to acknowledge before determining a course of action."

Another student who was just promoted to the position of Executive Services and Properties Manager at a major corporation, writes that she has "thus far identified several methods of improving services at two facilities by evaluating feedback to determine how operations can be improved..., and am in the process of developing a five-year expense budget forecast for each facility and will develop a plan to monitor spending."

All of the students noted particular satisfaction with their increased abilities in the Interpersonal domain. As one student elaborates: "During my current assignment with X Industries, I will function in the roles of marketing and sales consultant and team member. I have already discovered a management team with some basic differences in management styles and a divergence of opinion as to what product lines should be given sales priority. I anticipate a considerable amount of mediation and negotiation on my part between management and the new owners as to this direction. I feel better prepared to understand and support several points of view as a result of my participation in the SNL program."

With regard to the ability to Make Decisions Informed by Values students report being better equipped, for example, to "do performance evaluation more fairly," to "prepare departmental activity reports for the Chairman," to "make meaning out of conflicting points of view and value systems between corporate policy and employee-parenting needs, without offending either faction," and to "handle an inter-office romance."

This repeated exercise in self-assessment precipitates reflection and action as students examine their own performance and development in their professional settings. This form of self-assessment embodies the principle of experiential learning because it joins cognitive, affective, and self-management (conative) abilities -- students must exercise skills of analysis, synthesis, integration, and evaluation, at the same time taking into account ways in which their motivations, attitudes, values, and expectations have influenced their interaction with a particular learning situation. When used as a tool for planning and feedback toward achievement of specified outcomes, assessment becomes a powerful tool for students to transform experience into useable knowledge.

###

MODELS OF INDIVIDUALIZED DEGREE PROGRAMS

Kent Warren, Ph.D.
Academic Adviser and Admission Coordinator
Program for Individualized Learning, University College
University of Minnesota

The University of Minnesota currently operates five individualized baccalaureate degree programs. It has tried and discarded five additional individualized baccalaureate programs. These programs have served different populations, though they have usually focused on students whose needs could not be met within traditional structures. In recent years the population has also involved students labeled as adult, mature, or nontraditional. In comparison with other large American universities (public and private), the University of Minnesota stands in a unique position in its commitment to, and implementation of, individualized baccalaureate programs. The purpose of this paper is to examine the history of individualized baccalaureate education at the University of Minnesota; to investigate the factors that led to the creation of the different program models, to the survival of some and to the demise of others; and to analyze the institutional environment that contributed to the development of these programs.

HISTORICAL REVIEW

I. INNOVATIONS OF THE DEPRESSION YEARS

In the spring of 1930, the University of Minnesota began its first formal attempt to provide individual students with personal options for their baccalaureate education. With support from deans and faculty, President Lotus D. Coffman established a committee to study the educational program of the University, to simplify it, remove administrative barriers, and consolidate where possible in order to "insure a more liberalized and coherent educational procedure than is possible with the emphasis now placed upon the various specialties" (President's letter appointing the committee).

The first recommendation of this group, known as the "Committee of Seven," was presented to the President and subsequently to the University's Board of Regents in June, 1930. The Board adopted a resolution that authorized the President to establish a committee with the authority to approve modifications and substitutions in individual students' curricula. The committee was to be composed of representatives of the various schools and colleges of the University.

This All-University Curricula Committee began to operate during the following academic year. The unofficial name of this operation was "the University College" (UC). The formal adoption of University College as the name came in stages during the next few years as students, faculty, and administrators needed to refer to the mechanism, as students needed to graduate from a college, and as reports needed to be written and commencement announcements printed.

According to President Coffman in 1930, this mechanism, committee, or "college" was designed so that the University could be involved in "mapping out programs of an individual character, disregarding college and departmental lines." Essentially the committee was established for students who wanted to use upper-division courses from more than one college at the University to create their own fields of study for either a bachelor of arts or bachelor of science degree. The philosophical foundations for this new capability of the University and for individualized education in the institution's future were articulated by President Coffman in his official report for the years 1928-1930. In referring to the resolution that established the committee, Coffman observed that the University now had:

> ...the opportunity of considering the needs of students, of arranging programs to correspond to those needs, of articulating them into an educational whole which will be liberalizing on the one hand and specializing on the other, if that seems desirable. It means that the University will forget administrative rules and red tape and adjust itself to the capabilities, the responsiveness, the ambitions, the hopes of its students.

In response to the trends reflected in the action of the Committee of Seven, the College of Science, Literature, and the Arts (SLA) also began to discuss and revise their curriculum during 1933 and 1934. In the fall of 1934, a new type of curriculum was provided for this college; it involved:

> ...the grouping of studies with greatest freedom in relation to the specific interest of the individual student. Thus the particular purpose of the student may lead him to cross departmental lines at will and to draw on courses in different subject-matters in a way that would appear bizarre to one who is accustomed only to the departmental manner of looking at education. Such a procedure is given meaning by the central purpose of the student and justified by the clearness with which the implications of that purpose are grasped and defined and by the criticism and

> eventual approval given by the adviser. This new type of curriculum may work out to great concentration determined by a very specific interest in the case of one student or to great breadth of cultivation in the case of another student. (President's Report, 1934-36)

This new curriculum led to a bachelor of arts degree, was called a liberal arts major, and was described as being interdepartmental in nature. By 1946 the title of the program included the words interdepartmental; in 1957 the liberal arts designator was dropped; and by 1975 the official title of the program was the Individually Designed Interdepartmental Major (IDIM).

II. WAR AND POST-WAR OPERATION AND STABILIZATION

As the war in Europe developed and as the Second World War began, universities throughout the country changed and adapted to the new environment. The University of Minnesota was no exception: traditional degree programs, as well as individualized degree programs, became more flexible, recognizing the needs of students preparing for the national war effort. Certain knowledge and skills had priority for a nation at war and degree programs reflected that priority.

With the end of the war and the return of veterans other changes resulted. Many programs became more flexible in setting program requirements and in allowing more individuality in curricular design. The number of students seeking and graduating from the two individualized degree programs (University College and SLA's interdepartmental liberal arts major) increased.

Credit for learning achieved while in the service became a need of many new students at the University and many programs and colleges responded positively to this need. Other changes were also implemented: in 1946 the College of Science, Literature, and the Arts established a new combined major that enabled students to combine their liberal arts education with their professional school education in medicine, dentistry, and law.

As the University headed into the fifties and sixties, the interest in and demand for new options appeared to decline. The two individualized degree programs established consistent enrollment patterns and were clearly integrated into the institution. No new individualized programs were created. Then as the University of Minnesota moved into the mid-sixties, a new environment of institutional and societal change erupted.

III. AN EXPLOSION OF ALTERNATIVES

In the late sixties, along with the rest of the nation, the state of Minnesota and its educational system experienced a resurgence of support for alternatives in higher education. Competency-based programs were being developed in community colleges, external programs were considered for state universities, and, in 1970, the state legislature voted to establish Metropolitan State University in St. Paul. This upper-division institution was to offer individualized, competency-based B.A. degree programs for adults. This resurgence also led to an explosion of individualized education at the University between between 1969 and 1975.

Established in 1962 to determine liberal education standards for the University's baccalaureate programs, the Council on Liberal Education (CLE) became a major force for educational research, innovation, and development in the late sixties. Between 1967 and 1970, it established the foundations for the development of new opportunities in undergraduate education.

In 1969, University College became the Inter-College Program; it continued to offer B.A. and B.S. degree programs. The following year a revised University College was approved to house experiments in undergraduate education. A newly created, university-wide independent study option and a developing living-learning center were placed within the reconstituted University College.

The first experimental bachelor's degree program to be put in UC evolved in the late sixties and began in 1970; it was known as Experimental College (EC). The theme of this program, which offered B.A. and B.S. degrees, was that students should take full responsibility for their own education. Students were to be responsible for their own learning objectives and the definition and direction of their own learning activities. These goals were to be accomplished within the context of community decision making in which all students, staff, and faculty had equal voice.

At the same time, General College (GC), an open-admissions, lower-division college, founded in 1930 in response to recommendations by the Committee of Seven, began its own efforts in individualized baccalaureate education. It started a pilot program in 1970 and the first baccalaureate degrees, the Bachelor of General Studies (BGS) and the Bachelor of Applied Studies (BAS) were offered two years later. These degree programs were based on the idea that students graduating from two-year institutions, such as GC, community colleges, and vocational-technical institutes, needed an alternative way to continue their baccalaureate education. BAS degree programs were either occupational, vocational, or career-oriented and BGS programs were based on the principles of general education.

Late in 1969, the University of Minnesota became a member of the Union of Experimenting Colleges and Universities (UECU). In 1970, UECU received a grant from the Ford Foundation and the U.S. Office of Education to start University Without Walls programs at 17 institutions. Minnesota's UWW program began as a pilot project in University College in 1971 and it was given degree granting rights the following year.

UWW was created to assist new populations in achieving their educational goals. The focus of this new program was on overcoming barriers to a college education, barriers created by geography, scheduling, work, family, incarceration, etc. The program did away with many traditional aspects of a college education: it did not use credits to measure completion of degree requirements; it did not require students to be in residence on campus; it did recognize and evaluate off-campus experiences and prior experiential learning activities for inclusion in degree programs; and it did give students major responsibility for their education.

When the Board of Regents approved of General College's new individualized degree programs in 1971, they also began the process of approving a new experimental program sponsored by the College of Liberal Arts (formerly Science, Literature, and the Arts). In January of 1972, the Board approved the new Bachelor of Elected Studies (BES) and the first students were admitted. Students in the BES program were given the freedom to select what they wanted to learn within the College of Liberal Arts (CLA) and to select additional coursework from other colleges at the University for their degrees. Students were given suggestions and possible directions, but had few specific requirements.

Meanwhile, University College developed a variety of other experiments in undergraduate education. Another individualized degree program, University Scholars, was proposed and developed during the 1974-75 academic year. University Scholars required that a faculty member sponsor the student and serve as a mentor throughout the degree program. This non-credit-based program was built on the close mentoring relationship possible between a faculty member and a student. The program was intended for students who demonstrated the ability to produce high quality scholarship and other creative efforts.

The proliferation of individualized degree programs also affected the College of Biological Sciences (CBS), which developed its own bachelor of science degree program in 1975, the Individually Designed Program (IDP). This program was intended for CBS students, whose educational and, often, professional goals could not be met through the traditional biological sciences major. Typically focused on career or thematic concerns, degree programs had to incorporate significant learning from another college at the University.

IV. A TIME FOR SECOND THOUGHTS

The war in Vietnam had finally come to an end and Watergate had come and gone, leaving the nation in a period of confusion and mourning. By 1976, increased financial pressure on the University combined with new institutional and societal caution, caused changes to occur. Some of the individualized degree programs were coming to the end of their experimental phase and review and reconsideration were expected.

The summer of 1976 began catastrophically for individualized degree programs. The University College Assembly (UC's governing body) voted to phase out Experimental College by 1980 (it was actually phased out by 1978). At the same time, a presidentially appointed UC review committee recommended eliminating UC and all of its programs with the exception of the Inter-College Program and a branch of UWW on the Morris campus of the University. After long and hard work by UC and program staff and faculty advisers, the recommendations of the review committee were rejected. The decision to phase out Experimental College was supported and changes were proposed and ultimately implemented for the University Without Walls program.

Also during that summer, the Bachelor of Elected Studies program suspended new admissions and a review of this experiment was initiated. As a result of this review, the program was phased out and the Bachelor of Individualized Studies (BIS) was developed. It began in 1978 with the specific goal of allowing students to build a program around a core of CLA courses, but with the provision that they could include up to 40 credits from courses completed outside of the college. Students were also expected to complete all liberal education requirements with the exception of the foreign language requirement.

The BIS was to be the last individualized baccalaureate program to be developed at the University of Minnesota. The 1980s have seen the demise or potential demise of several individualized degree programs. University College decided to phase out the University Scholars program in 1983, concluding that its students could be served as well or better through other programs. General College was forced to drop the BAS and BGS programs in 1985 as a result of major changes proposed for the University as a whole. Those proposed changes also involved eliminating the University Without Walls. However, in 1986, UWW refined its mission, was endorsed by the Board of Regents, and changed its name to the Program for Individualized Learning.

INDIVIDUALIZED DEGREE PROGRAM MODELS

The individualized degree programs that have been created at the University of Minnesota can be placed within two primary models: curriculum modification and curriculum revolution. The programs that followed the curriculum modification model have as their primary characteristic the flexible use of traditional course offerings. The degree and extent of that flexibility varied greatly from program to program; however each program required fairly specific liberal education requirements and a major concentration, all of which would be addressed through the completion of coursework.

Programs fitting within the curriculum modification model are: University College-Inter-College Program, Individually Designed Interdepartmental Major, Bachelor of General Studies, Bachelor of Applied Studies, Individually Designed Program, and Bachelor of Individualized Study.

The programs that fit within the curriculum revolution model are characterized by significant modifications of traditional curriculum structures, such as use of credits and grades, learning strategies, campus-based education, student-teacher relationships, and degree requirements. Some programs, such as UWW, developed an emphasis on liberal education and a major focus, but did not require traditional learning strategies or other degree requirements. At the other extreme, BES allowed students to operate without faculty guidance, to select courses at will, and to avoid liberal education requirements.

Programs that fit within the curriculum revolution model are: Experimental College, Bachelor of Elected Studies, University Without Walls, and University Scholars.

Some programs in both models incorporated other characteristics of individualized education into their operation. They encouraged the use of experiential learning (internships, study abroad, laboratory experiments, etc.), the evaluation of prior learning experiences, the acceptance of credits earned through a variety of examination programs, and the use of independent learning activities.

ANALYSIS: FACTORS OF CREATION AND SURVIVAL

Of the individualized degree programs discussed earlier, five no longer exist and there are discussions now within the University about combining several of the remaining programs. Why were these programs created in the first place? Why have some survived while others have been eliminated? What characteristics have led to success or failure? What has been learned by this 57-year history? Certain contributing factors have become apparent as the programs and their histories have been examined. Those factors include societal dynamics, institutional structures and decision making, faculty involvement and commitment, and ability to change.

1. The Society: The University of Minnesota is a land-grant institution in a historically progressive state, a metropolitan institution, and an institution that has traditionally assumed responsibility for educating the individual as well as the masses. This dual responsibility has helped the institution to remain sensitive and responsive to the needs and goals of individuals and to society as a whole. The history recounted in this paper demonstrates the University's responsiveness to ideas, ideals, and pressures from the larger society. The liberality of the sixties resulted in many and varied alternatives, while the new-found conservatism of the eighties has resulted in fewer and more restrictive options.

2. The Institution: Decentralization and autonomy have been the guiding principles of the University for many years, with a charter that predates statehood. Discussion, development, and decision making have traditionally happened within the colleges and their faculty. Collegiate autonomy has led to increased creativity, to greater understanding of personal needs and goals, and to the proliferation of individual alternatives. Autonomy has also led to poor communication, duplication of services, and squandering of limited resources. While University College involved faculty from throughout the institution in discussions and decisions about individualized education, it could not integrate the results of those discussions into the governance and decision-making structures of the other colleges. These characteristics have affected the development of individualized programs and may now contribute to their limitation or elimination.

3. The Faculty: Faculty involvement and personal commitment has been a clear factor in the success of many programs and the failure of others. Experimental College was characterized by antagonism toward traditional faculty roles. The faculty who were involved with EC were often apologetic to students about their own professional behavior, which

tended to fall into older, more traditional patterns. Faculty members were brought in to teach courses, but they were rarely, if ever, involved in providing direction. The success of UC-ICP, on the other hand, is a direct reflection of the intimate and consistent involvement of faculty. For the first 40 years, UC was operated exclusively by faculty members. With significant growth in student enrollment beginning in 1969, professional academic advisers became critical to the program, but faculty members stayed close to the program as members of governance committees and college advisers.

The University Scholars program provided a different problem regarding faculty commitment. External reviews of this program revealed that students were often working too closely with their faculty advisers and were completing degree programs that were too highly focused, and specifically focused on an individual faculty member's area of expertise.

The critical role of faculty has been most clearly demonstrated in the case of the University Without Walls. UWW was developed by faculty, supported by faculty, and eventually saved by faculty. After the program was founded, academic advisers and administrators took over the operation. Faculty were interested, but often not rewarded for their involvement. Faculty members were always involved in approving students' programs, but their interaction was often late and inconsistent in the educational process. When the decision was made in 1976 to keep, but alter UWW, the appropriate use of faculty became a major issue. By 1979, UWW had hired a faculty director, who served part-time while teaching as a tenured professor in another college. UWW also established a faculty governance committee, required faculty commitment as part of admissions procedures, and increased faculty participation in evaluating students' readiness to graduate.

4. The Ability to Change: University College-ICP and the Individually Designed Interdepartmental Major have repeatedly demonstrated the ability to change. They have grown or become smaller, modified or stayed the same as the needs and goals of students and the institution and its politics changed. The Experimental College is the best example of a program that resisted change and did not recognize the types of changes that were necessary for survival. In its attempt to exist, EC staff and students were unable to make significant change. Given its governing principles, however, the types of changes needed were likely impossible. The University Without Walls, on the other hand, has demonstrated that a willingness to change combined with a commitment to principles, can lead to relative permanence in an unstable environment.

POSTSCRIPT

This paper represents the initial stages in an examination of the history of individualized education at the University of Minnesota. Through further research and analysis, I hope to discover possible connections between social forces and institutional change, between educational philosophy and program development, between individual vision and institutional commitment.

The resources used for this paper are from the Archives at the University of Minnesota. Resources, covering the period from 1928 to the present, included: presidential reports, Board of Regents' minutes, faculty senate minutes, college bulletins, newspaper clippings, University and program histories, institutional reports, and numerous college and program publications.

To conclude the paper, I would like to share an unusual and unexplained discovery of my research: The Physicists' Phenomenon. The history of individualized baccalaureate degree programs at the University of Minnesota reveals the ongoing presence and influence of physicists. University College was headed by physicist John Tate from 1930 to 1941; he was replaced by another physicist, J.W. Buchta, who served until 1962; after a brief period of non-physics' leadership, Alfred Vaughan, another physicist and student of Tate's, took the director's role until 1971. In the revised University College, the first new program was Experimental College and it had been proposed and guided by Roger Jones, a physicist. The new UC began its life under acting director, physicist James Werntz who served for a year, but returned as director from 1978 to 1981. Finally, in the past few years the governance committees of both ICP and UWW have had critical leadership from other members of the physics department. In an attempt to explain the physicist phenomenon, one of these new leaders hypothesized that physicists are always looking for new explanations of the world, new ways of viewing what exists, and new ways of doing their research. As a result of this behavior, they have been constitutionally predisposed to seeking out, creating, and supporting new and individual ways of achieving an education.

CONTEXTUAL KNOWING: TEACHING STRATEGIES FOR ADULTS

Donald B. Pribor,Ph.D.
Professor of Biology
Biology Department
The University of Toledo
Toledo, Ohio 43606

Contextual knowing implies that the meaning of a thing or idea is partially determined by context in contrast to formal knowing which understands any thing or idea in terms of interactions among autonomous subunits where each subunit is understood independent of context. For example, a family may be understood formally as the interactions among mother, father, and children where each of these persons is defined by a set of expected behaviors appropriate to his or her role in the family. Contextual understanding would involve knowing about and being empathic to the family history including any crisis or tragedy that has occurred. Moreover, the behavior of each family member would be viewed in relation to the interactions he/she has had or is having with others in the family. This example also shows that contextual knowing includes concrete, experiential knowing involving feelings in contrast to formal knowing which is abstract, objective, and devoid of feelings.

Traditional undergraduate education consists of formal knowing which: 1) builds upon prerequisite formal knowledge obtained in high school and 2) prepares students for life experiences outside of college and for additional formal education. Currently, all students - especially adults- come to American colleges with very diverse backgrounds and diverse expectations of what college education can enable them to achieve in life. Therefore, there is a mismatch between traditional education and the needs of many students. This mismatch is even greater for adults who have experiential knowledge of the world and therefore are less likely to uncritically accept and memorize facts and theories presented to them.

Modern societies have become very complex and continue to change very rapidly. Therefore, formal education cannot even begin to anticipate many of the challenges students will face outside college. For example, one student who has learnt about the human body as part of his general education may need to know some molecular biology whereas just the reverse situation may be true of another student who has learnt about molecular biology. There are many facts, theories, and skills that could be useful to a person, but even a life-long professional student could not learn all these things. Much of formal education that could be useful but in fact is never used is a waste of time. For example, many schools require biology majors to take calculus. Most professional biologists never use the calculation skills

TEACHING

CONTEXTUAL KNOWING: TEACHING STRATEGIES FOR ADULTS

Donald B. Pribor,Ph.D.
Professor of Biology
Biology Department
The University of Toledo
Toledo, Ohio 43606

Contextual knowing implies that the meaning of a thing or idea is partially determined by context in contrast to formal knowing which understands any thing or idea in terms of interactions among autonomous subunits where each subunit is understood independent of context. For example, a family may be understood formally as the interactions among mother, father, and children where each of these persons is defined by a set of expected behaviors appropriate to his or her role in the family. Contextual understanding would involve knowing about and being empathic to the family history including any crisis or tragedy that has occurred. Moreover, the behavior of each family member would be viewed in relation to the interactions he/she has had or is having with others in the family. This example also shows that contextual knowing includes concrete, experiential knowing involving feelings in contrast to formal knowing which is abstract, objective, and devoid of feelings.

Traditional undergraduate education consists of formal knowing which: 1) builds upon prerequisite formal knowledge obtained in high school and 2) prepares students for life experiences outside of college and for additional formal education. Currently, all students - especially adults- come to American colleges with very diverse backgrounds and diverse expectations of what college education can enable them to achieve in life. Therefore, there is a mismatch between traditional education and the needs of many students. This mismatch is even greater for adults who have experiential knowledge of the world and therefore are less likely to uncritically accept and memorize facts and theories presented to them.

Modern societies have become very complex and continue to change very rapidly. Therefore, formal education cannot even begin to anticipate many of the challenges students will face outside college. For example, one student who has learnt about the human body as part of his general education may need to know some molecular biology whereas just the reverse situation may be true of another student who has learnt about molecular biology. There are many facts, theories, and skills that could be useful to a person, but even a life-long professional student could not learn all these things. Much of formal education that could be useful but in fact is never used is a waste of time. For example, many schools require biology majors to take calculus. Most professional biologists never use the calculation skills learned in one year of college calculus. Therefore, most of the time and energy spent in these courses is wasted. Adults are even less able and willing to waste time and energy than students recently graduated from high school.

Thus, selecting teaching strategies for adults is a contextual problem. Each student needs certain kinds of formal knowledge, but the pattern of this knowledge - usually represented by a particular curriculum - varies with the context of each adult. Some schools such as the Program for Individualized Learning at the University of Minnesota do enable adults to develop individualized curricula appropriate to their background and needs. However, this approach would not work for schools which educate large numbers of adults. The challenge is to design standardized curricula which students can modify to fit their individual needs. In other words, undergraduate education should include both formal and contextual knowing.

Context also determines the degree of contextual knowing that should be in any part of the undergraduate curriculum. Some students prefer a totally formal curriculum; they individualize their training once they begin to apply formal knowledge to concrete problems. Other students need to individualize their understanding from the very start in order to learn a subject. There is a wealth of evidence that personality type, gender, and ethnic background influence whether a person prefers formal or contextual knowing. Contextual knowing is slower, sometimes more difficult, and for short-term use, less efficient than formal knowing. As a result, even people who ordinarily like contextual knowing may prefer formal knowing in some situations. For example, it is possible to have a contextual understanding of numbers as a basis for knowing how to do simple arithmetic calculations. However, many people prefer a strictly formal understanding of enough arithmetic to satisfy their daily needs.

Overall, then, undergraduate education should be mostly formal for some people, mostly contextual for others, and some mix of formal and contextual knowing for still others. This mix refers to the degree to which conceptual knowing is determined by context. The mix also refers to the degree to which rational theories include feeling awareness and are holistic, subjective, intuitive, ambiguous, uncertain, and metaphorical.

Formal education is not only adequate but is the most efficient type of preparation for routine jobs which change slowly or require only occasionally some minor modifications. In these circumstances, adequate formal knowledge contains the solutions to all problems that may arise (just as geometrical axioms implicitly contain all the information found in the theorems that can be deduced from these axioms).

Problem solving is the art of being able to apply general knowledge to concrete situations. However, for many life situations today, even the most extensive formal knowledge does not contain answers to problems which arise. For example, the most extensive knowledge of mechanistic medicine does not contain solutions to stress related high blood pressure in some people. Designing teaching strategies for adult students is another example of this type of situation. In these circumstances, one must use formal knowledge as an aid to create solutions to problems. This type of creativity requires contextual knowing.

Thus, becoming fluent with contextual knowing not only would be desirable for some types of students, it is essential for preparing many students for life in a complex technological, rapidly changing society.

Futhermore, Western thought in the 20th century is evolving toward a mix of formal and contextual knowing. Einstein's special theory of relativity formulated at the turn of this century introduced a subjective aspect to mechanistic physics. Quantum mechanics formulated in the 1920s introduced a greater degree of subjectivity. Currently, some scientists argue that branches of biology such as ecology, molecular biology, neurophysiology, and immunology are an extensive mix of formal and contextual knowing. If even the natural sciences are becoming more contextual, it is easy to accept that the social sciences as well as the humanities have done so also. In short, there has been an epistemological and philosophical transformation of Western thinking from formal to a mix of formal and contextual knowing. Undergraduate education should express the results of this revolution.

The extensive mix of formal and contextual knowing implies that abstract theories and concrete experiences are interdependent; each has value only in relation to the other. This insight provides the basis for the following guidelines for designing teaching strategies and curricula for adults. (1) Faculty should identify a common core of ideas that relate to a common core of experiences which students have had or are likely to have in the future. (2) Any teacher should describe his/her ideas that relate to a single theme, rather than merely state a collection of ideas. (3) Conceptual knowing involving rational awareness should be integrated with experiential knowing involving feeling awareness. (4) Any teacher should be a facilitator rather than a dispenser of knowledge, and each student should take responsibility for his/her own learning rather than merely being a receiver of knowledge. (5) Each student should write essays which describe his/her experiential understanding of the ideas presented by the teacher. (6) The teaching-learning process should cause students, and sometimes teachers as well, to reevaluate and reconstruct their "knowledge stories" to incorporate new ideas and new life experiences. (7) The teaching-learning process should cause students to enter the learning transformation spiral of ORDER --> CHAOS--> NEW ORDER which incorporates a modified version of the old order.

Many disciplines have become so technical that it does not seem possible to introduce contextual knowing without promoting a very superficial and misleading understanding of the subject. A case in point is that most science education emphasizes formal knowing and consists of hierarchical networks of abstract concepts. For example, in order to learn about the human nervous system, one first must have some detailed formal understanding of cell biology which presupposes several concepts in chemistry, physics, and mathematics. The technical anatomical and functional terminology related to the nervous system is enough to discourage any in depth understanding by non-science majors. The prerequisite formal knowledge puts understanding out of reach for most people. The same thing could be said about many other topics in science. In fact, most universities have given up trying to teach in - depth understanding of science to non-science majors.

> In May, 1978, the Harvard faculty voted by a majority of greater than 3 to 1 to institute a core curriculum... [that] minimizes science and ... [therefore] the vast majority of students who graduate from Harvard are, in a real sense, uneducated because they know almost no science. This conclusion... [is] also true of the graduates of many, and perhaps most other U.S. colleges and universities.... We are educating our students to fit into C.P. Snow's two cultures: one group in the humanities and an entirely different group in science and technology.1

The remainder of this paper describes an introductory course, "Exploring the Natural Sciences," which facilitates deep insights into some major ideas in science. This course purports to bypass the exclusively formal and hierarchical structure of science. At the same time, the course illustrates the guidelines for constructing curricula which incorporate a great deal of contextual knowing. If such a course is indeed feasible for a diverse population of adult students, then this approach would be feasible for many other disciplines besides science.

Purpose and Unifying Theme of Natural Science Course

The purpose and unifying theme illustrate guidelines 1 & 2. The purpose of this course is to facilitate students understanding ideas that will be useful in any of the other science courses they must take. At the same time these ideas will help students to adapt to a rapidly changing post-industrial society. The unifying theme of the course is the evolution of science from a static mechanistic perspective, through a process perspective, to an emerging new perspective which may be called "Gestalt Systems Science." This evolution of scientific thought is characterized by the changing relationship between order and chaos. In mechanistic science, order dominates chaos. In process science, individual things or events are disturbed by chaos, but a pattern in a population of things or events (population order) dominates chaos. Communication is the core idea of gestalt systems science which consists of two co-equal complementary aspects: 1) ecology in which networks of communication dominate chaos and 2) evolution in which networks of communication transcend chaos.

Course Content

The course content is divided into three sections: mechanistic science, process science, and gestalt systems science. A discussion of the cell theory illustrates the scientific method appropriate to mechanistic science. This is followed by a discussion of the three characteristics of any machine. The operation of any machine illustrates the non-statistical prediction criterion for the validity of a mechanistic theory. A discussion of holistic mechanism is exemplified by an understanding of homeostasis and of a cell as a homeostatic machine.

Process science incorporates mechanistic science into an overview which accounts for qualitative changes over time and/or for stable patterns in populations of things or events. An explanation of species life cycle including a description of DNA replication and cell division (mitosis, and meiosis) illustrates all of these aspects. An explanation of Mendel's first law of genetics provides the necessary background for understanding the modern theory of evolution and also illustrates the statistical prediction criterion for the validity of a process theory. The mechanistic understanding of the biological theory of evolution illustrates two very different types of process theories: one verified by the criterion of prediction, e.g., genetics, and the other verified by lack of falsification.

In gestalt systems science, any thing or event is defined in terms of an interaction which in turn is defined as a communication. Because communication is the core idea of gestalt systems science, this form of science may also be called "communication perspective." Communication is defined as a contextual interaction between a sender and a receiver which directly or indirectly leads to an observable event. The communication perspective incorporates mechanistic or process science into an overview which consists of two co-equal complementary divisions: ecology and evolution (see above). The course first describes the general theory of communication and then exemplifies a communication understanding of ecology in terms of the human immune system producing antibodies. AIDS is the breakdown of immunological communication. A description of AIDS illustrates how any system becomes nonfunctional when major communication networks breakdown.

In the communication perspective evolution occurs at all levels of organization in the universe and is considered to be an order --> chaos --> new order transformation spiral (or alternatively life --> death --> rebirth transformation spiral). After describing five features of evolution as a pattern of creativity, the course applies these ideas to chemical reactions, species transformation in the biological theory of evolution, and various examples of human creativity such as two people forming an intimate relationship.

Guideline 3: Mix of Conceptual and Experiential Knowing

All the key ideas of science in this course are described in terms of students' concrete experiences. For example, any machine has one or more energy couplers. A hammer or baseball bat illustrates the core idea of an energy coupler and a baseball player or a woman hammering a nail into a wooden board illustrates the three fundamental ideas of any machine. Once the student understands these ideas, he/she can apply them to understanding any network of persons and things organized to accomplish a specific quantitative task.

The oral presentation of this paper will use members of the audience as actors in a brief play that illustrates how the immune system recognizes a virus, increase the number of cells that can recognize and attack a virus, and produce antibodies against the virus. Hopefully this demonstration will enable people to experience how the immune system works and to understand the communication perspective.

Guidelines 4 & 5: Teacher Facilitation of Student Learning

The degree of detail and depth of understanding of the ideas in this course will depend on each student's background and interest in the subject. Each student's understanding is graded on the basis of several essays he/she is required to write. Each essays is required to integrate conceptual and experiential knowing. For example, a student may be required to write an essay that applies the concept of a machine to an organization pattern in his family or place of work. Grades range from A to F, but each student is allowed to rewrite essays in order to receive a better grade. The grading system is not competitive; that is, it often happens that two people with quite different levels of understanding of an idea nevertheless write good papers worthy of an A grade.

Guidelines 6 & 7: Teaching-Learning As A Creative Process

The content of the course is presented in a lecture-discussion setting. As a teacher, I often find that I have to expand or deepen my understanding of an idea as a result of class discussion - aspects come up which I have not thought of. If the class size is greater than 30, students are encouraged or required to form discussion groups that meet outside of class lectures. Students help one another change the way each views the world. A major goal of this course is to present students with ideas that they can immediately incorporate and use in their life situation. This often requires students to transform the way they see themselves and their life situations.

REFERENCES AND NOTES

1. F. H. Westheimer, "Are Our Universities Rotten at the Core?" *Science*, vol 236 (1987).

2. The approach used in this course is based on a rough draft of a book entitled *Fundamental Ideas in Science* by D. Pribor

3. The approach used in this course also is illustrated by another course described in a paper: Donald B. Pribor, "Guidelines for Non-Traditional Interdisciplinary Curricula," Proceedings from the Fifth Annual Conf. on Non-Traditional and Interdisciplinary Programs (May 4-6, 1987, Virginia Beach, VA) pp 331 - 340. The course described in this paper is based on the book: Pribor, D.B. *Overview of Physiological Stability*, Dubuque, Iowa: Kendall/Hunt Pub. Co., 1987.

ARCHIVING AS A MEANS TO STUDY TEACHING

Sharon E. Simone
Lesley College Graduate School, Cambridge, Massachusetts
Harvard Graduate School of Education, Doctoral Student

This paper describes the Lesley College Adult Learner Archives and the impact it is having on a group of Lesley Outreach faculty. Through the initiative of a small core of faculty and administrators within the Outreach and Alternative Education Division of Lesley Graduate School and with the help of several professional development grants from the Graduate School, this archive, the first of its kind in the country, was born.

Although the purpose of the Archives is to provide a repository for adult learner materials generated by Lesley students in any of the many degree programs offered for adults both on and off campus, its existence has sparked lively faculty interest and has provided a rich opportunity for faculty to study student materials collected from various programs. As a result of this close scrutiny, the teaching strategies of this diverse Lesley faculty are being made visible in ways that surprise, awe and challenge those who have become, in effect, teacher-researchers.

LESLEY COLLEGE ADULT LEARNER ARCHIVES

Acknowledgements

Before moving to a description of the Lesley College Adult Learner Archives, I want to acknowledge the inspirational debt this Archives owes to the Prospect Archive located in North Bennington, Vermont and to Jill Tarule, Director of the Weekend Learning Communities program at Lesley College. While the Lesley Adult Learner Archives certainly has its own character and uniqueness, the idea for collecting adult students' work came out of a conversation between Jill and another Lesley faculty member concerning the exciting research going on at Prospect relevant to the school's collection of children's work.

For those unfamiliar with the Prospect School and the Archive associated with it, it is a remarkable small, private alternative school for children between 4-1/2 and 14 years of age. It was established in 1965, and the archives collection associated with the school holds work and records of the more than 300 children who have attended the school since its inception.[1] Reading the materials about the school and its philosophy of education and visiting this haven to better understand the staff's methods and purposes for collecting children's work is an uplifting experience that has much to contribute to one's understanding of the qualitative research methodology developing around the Prospect School and Archive.[2] Their work represents some of the most respectful, powerful, and exciting methodological approaches to educational research documented to date.

Shaping the Collection

The Lesley College Adult Learner Archives is entering its third year of development and is presently housed in the Outreach and Alternative Education Division of Lesley Graduate School. Although still in its infant stages, the collection contains materials from several courses offered through Lesley College as well as materials generated through student independent study. Supporting material from faculty files and program offices is also part of the collection.

Since the Archives is still quite young, the founders, at present, are those most involved in the data collection process. Faculty and administrators of the Outreach Division have regularly participated in retreat days organized to examine student materials culled from various program files and studied with permission of the students and faculty involved. Through this process of meeting together and reviewing student work and faculty response to that work, ideas began to take shape as to what to collect for the Archives and how to collect it.

Because the Archives is still taking shape, the founders are hesitant to restrict collection to only certain types of materials. Already the notion of organizing the collection in diverse ways rather than limiting it to "by student over time" (as in the Prospect Archives collection), has strongly presented itself. Some other possibilities for collection and organization include: collecting all faculty and student evaluations of individually guided studies and organizing them as a set, such as per semester, per year, or over several years; collecting all the final papers for courses that are offered regularly through the adult degree programs; and collecting papers and works of art that deal with the various life themes adult students tend to manifest in their academic work.

Some faculty would like the opportunity to see how adults approach an introductory science seminar or an introduction to the arts seminar. They are anxious to systematically study what questions these adults choose to investigate in such courses. If the materials from courses such as these were "archived" this would be possible. It would also be possible to study collections such as these attending to the teaching strategies used by faculty involved in the courses.

For now, the Archives collection is available for research purposes to the faculty and administrators of the Outreach Division of Lesley Graduate School. As the collection grows and is organized for outside use, it is hoped that it might be used by researchers interested in adult learning. As mentioned earlier, no doors have been closed as to the shape of the Archives. It may be extended to include special segments of Lesley College's traditional-aged undergraduate population. We have discussed the value of including this group's work in the collection because it would allow for a broader range of developmental questions to be explored. It would also allow for the study of various pedagogical questions associated with educating traditional and non-traditional students.

With the emphasis now on rethinking, or at least trying to define for the present time, what an undergraduate education should consist of, we at Lesley recognize the unique opportunity we have to study the variety of undergraduate and graduate populations we serve by collecting work from both groups of students. For the moment though, what exists in the Archives is adult learner materials.

Archiving to Studying Teaching

Through studying archived materials, Lesley faculty have gained important understandings concerning the various impact teacher response to student work can have on student learning. A series of teacher responses to one student's work can provide an important window into teacher feedback which helps move student thought from the circumscribed to the more global; what teacher response, like a sensitive magnet, picks up and separates out for consideration, a conflict, dilemma or question that later becomes the linchpin of a student's semester-long inquiry.

Studying teacher commentary on student work can also provide important insight into values and standards teachers hold regarding what is important, and hence, what they believe students should learn. Teaching strategies are laden with these values and standards, and when teacher responses are studied carefully, the values and standards can be brought forward and examined critically.

Looking at materials collected from an entire course (archiving a class) or from a semester long individually guided study[3] can produce, in full-color print, what might be likened to a negative that stays in the Kodak envelope in the drawer and rarely goes to print. Negatives such as these, when developed through studying archived material, produce valuable pictures for the teacher and for others who want to study transactions that shaped a particular teaching and learning experience.

This process of closely observing both student work and teacher responses to that work is begining to impact the teaching practice of these individuals. Important pictures are emerging that may contribute to the growing body of wisdom about what teaching strategies most support adult students' personal, intellectual and social growth. At the same time, the values, standards and teaching strategies of a diverse faculty are being made visible in ways that are stimulating these teachers to become rigorous researchers of their own practice as well as astute observers and cogent commentators on one another's teaching practices.

In order to appreciate the finesse involved in supporting student growth, and to see how this can be observed through studying archived materials, let us turn our attention to a study undertaken by Carol and Beth. (The individuals involved have been given pseudonyms to protect their anonymity).

Using the Collection

Beth and Carol

By using materials from the Archives, Lesley faculty have been able to closely observe interactions between Carol and Beth. One picture that has emerged as a result of this archiving process was developed using records from two separate sixteen-credit studies undertaken by Beth. Both were "childbirth" studies. One study was entitled, "A General Overview of Childbirth" and the other "Childbirth in

Non-Western Cultures... Myths and Legends." Although materials from the second study certainly contributed to a fuller picture of this student's work, for the purposes of this paper, only the first study (the Overview) was drawn upon.

Beth was a student enrolled in the Adult Degree Option program sponsored by Lesley College.[4] Carol is a full-time faculty member who mentors exclusively within this program. Her areas of expertise include: human development, psychology, education, women's studies and spirituality. She has a particular commitment to supporting and fostering wholistic responses to a variety of social ills.

Beth was completing her degree by working independently with faculty/mentors such as Carol. Every six months until she graduated, Beth undertook a different sixteen credit individually guided study which was supervised by a faculty member she elected to work with. A ten-day intensive residency preceeded each six-month study, and provided the occasion for Beth and other students to talk to faculty members about possible study together. In order to arrive at a match between Beth's academic needs and interests, and faculty expertise and workload, she may have discussed her interests with several other faculty members before deciding upon Carol.

Collection materials reviewed for this paper were taken from the portion of Beth's collection file related to her "Overview" childbirth study and included:

-several pages of student's "starting assumptions"
-detailed "study planning form"
-three "project to date summaries"
-seven book annotations
-one journal article annotation
-several pages of personal journal entries
-two letters from student to faculty member
-three letters from faculty to student
-an "evolving bibliography"
-a final bibliography
-a 25-page final paper
-a final evaluation of the 16 credit study

At the outset of the study, Beth listed the following as the major aims of her study:

1. To learn in detail the anatomy and physiology of childbirth.
2. To get an historical perspective of childbirth in this country.
3. To learn more about the politics and economics of childbirth.
4. To enhance my intuitive skills in childbirth with practical information, knowledge of pyschological tools, and group skills.
5. To gather artwork on pregnancy, birth, postpartum and early family life.

In order to accomplish her aims, Beth planned to do a significant amount of reading and writing on her topic, attend art design classes, assist a childbirth educator with an eight-week series of childbirth classes, and create a visualization for pregnant women and their partners. This plan was agreed upon by both Beth and Carol.

Before she began this process, however, Carol invited Beth to list assumptions she held about childbirth. Her fourteen assumptions ranged from "techniques for distraction are really not effective...slow, measured breathing and concentrating on the inner self is usually more helpful," to "the woman must continue to eat lightly and drink throughout labor. Where else will she get the energy to do so much work? Aspiration of vomitus is only a problem in general anesthesia which is very rarely used."

While her assumptions were very strongly stated, at this time, she did not overtly indict the medical profession for its approach to childbirth. Her assumptions did carry perceptible seeds of anger and frustration toward certain birthing practices, and included many references to alternative practices and approaches to childbirth. These were easily recognized as belonging to the "natural childbirth movement."

Soon after the study began, a journal entry sent to Carol showed evidence of Beth's growing frustration with hospital birthing practices.

Fueled by readings such as Labor and Delivery: An Observer's Diary by Constance Bean and Common Sense Childbirth by Lester Dessez Hazel, she said:

> Connie Bean's book has left me horrified. After hearing many labor stories from many women, I know that what happens in hospitals is insidious and often unpleasant, at least. (But then there are good experiences like mine.) But to read them and have them all written down on paper where there can be no doubt about what happened...I am hoping things are better and I know that in some ways they are...but the caesarean rate is still around 20% and most women still have epidurals.

She goes on to say:

> I'm beginning to see what a whirlpool, a vortex this OB field is. I can't understand why, when research is so clear and unequivocal, OB's persist in subjecting women to such horrible procedures. It's hard for me to believe that they aren't basically good, human people just like everyone else. But the dichotomy between their actions and the research judgement on their actions is frightening.

Carol's deftness in underscoring what is emerging as a critical dilemma for Beth is evident in her responses to the foregoing journal entries. To the latter entry she responds in huge, bold print: "Here is a great question to pursue...a testimony to keeping a journal...ah, of course they (OB's) are good people. Then what else has to be going on?" In this transaction, Carol credits Beth with the articulation of an important question and praises the student's fidelity to journal keeping. She then raises a question of her own in response to Beth's cry about doctors being "good" people: "What else has to be going on?" With great skill and economy, Carol exhibits supportive teaching that continues to show its effects in Beth's work-in-progress.

Another example, taken from an interchange on an annotation of Labor and Delivery: An Observer's Diary in the same packet of work-in-progress, shows how consistently Carol applies her comments "like a sensitive magnet" to areas of great student energy and turmoil. It is almost as if, once fastened upon (though always initiated by the student) this identified hot spot becomes the energizing core of Beth's study. Of all the directions Carol could have urged this student to take, this one seemed the most "alive." Returning now to listen in on this important interchange we find Beth stating:

> The cumulative effect of these stories is rather chilling. It seems that the standard practices in obstetrics have very little to do with the real needs of mothers or babies. Under the guise of safety, the physicians routinely medicate mothers heavily, use forceps to deliver babies, stimulate labor with Pitocin, pull on the cord to hasten the birth of the placenta and perform Caesarean's when labor does not conform to strict norms. It seems that almost no attention is paid to many studies illuminating the very real risks involved in all these procedures.

Underlining the last statment in Beth's annotation, Carol responded: "elaborate for yourself the motives behind the procedures and your last statement (underlined) represents a key point."

Beth's struggle to reconcile the disparity among research evidence, OB's birthing practices, and her strong wish to believe in the goodness of people in general eventually leads her to produce a very moving final paper that according to Carol's evaluation:

> demonstrates the vigor with which she pursued her most pressing question which she now understands from a variety of perspectives. While she is critical of much of modern obstetrical practice, she understands its evolution and the pressures doctors face. She is also taking responsibility to develop her own views on matters of difficult choice.

Without probing responses such as the following, it is doubtful that Beth would have found her own way in and out of the center of her own conflict:

> ...I think you should continue to try to understand the motivations of the medical establishment to work against what the research is demonstrating as the safer ways of dealing with birth. Why is the drive to intervene so strong? Does the fact that women

> come to hospitals make them feel like they should DO something for/to them? What is the nature of the worldview of doctors? How powerful is a worldview--an outlook on life? Why is it so hard to change? ...Another question has occurred to me which is on an equal par to the question of what makes these doctors ignore research. Why do mothers not learn more, try to take greater control over their births? Why do they not even know what to ask? This freaks me out as much. I'm sending you the story of my brother's birth of his son a couple of weeks ago. There are these elements to their story, which my brother tells with pride and not embarrassment. One clencher for me is the last line about how the OB's quickly pulled out the placenta, making it 'easier for Ann.' Ugh! ...I asked Ann what she had read about childbirth--'not much' though she's college educated!.

Leaving this study of Carol and Beth raises the question of how does studying some of these full-color prints of Carol's practice impact the practice of teaching? The faculty that studied these materials have not attempted to develop a taxonomy of teaching strategies that "work." What they have done is describe what they see to each other. There has been a sense of awe developing as we look together at Archives materials. The students seem extraordinary. This parallels the Prospect staff's experience with reviewing children's work. No child is like any other. All are amazing individuals. What the Lesley faculty are beginning to see developing is a variety of teacher portraits. Perhaps a collection of teacher portraits can teach more about the practice of teaching than a top ten list of teaching strategies ever could.

Using the Collection

Archiving a Class--The Colorado Teachers

The specific collection that is the focus of this segment of the paper consists of adult learner materials collected from a required curriculum theory course taught in Colorado through Lesley College's National Outreach program. Forty-three elementary and middle school teachers enrolled in this course as part of a Master's in creative arts degree program.

The following materials were collected with written permission of all but one of the forty-three students:

- -42 letters written to instructor before first class meeting
- -record of each student's music piece selection
- -record of 42 valued objects brought to share
- -list of each students "working definition" of curriculum upon entering course
- -charts including class demographics on Kolb learning style and Myers-Briggs Personality Type Test.
- -a few visual models of utopian curriculum conceptions
- -42 final papers of 10-15 pages each

Supporting documents from the instructor include:

- -instructor philosophy of education statement
- -initial letter to students
- -course syllabus
- -notes and scribbles of before, during and after class notes
- -copies of xeroxed handouts, articles and tests
- -planning notes and lecture notes
- -mid-term and final evaluations done by students
- -numerous responses to student final papers
- -grade sheet

Although moving to a discussion of this material will lead me to shift from a more formal mode of presentation to a more personal one, it seems so important in terms of describing the impact archiving can have on teaching that this dimension not be ignored. I take some comfort in the fact that reflection on one's practice is encouraged these days.

Since I was the instructor for the Colorado curriculum theory course, and was also heavily involved in shaping the Archives, it occured to me that it might be interesting to collect materials from an off-campus course. At the time of this decision, collecting everything generated through the course was my only Archives-related purpose. This decision ended up powerfully influencing my experience of teaching the curriculum course, although I did not realize this at the time.

I do remember being acutely aware of not wanting to miss any opportunity to save material generated during this course which was taught in a two-weekend intensive format. Looking back on this, I realize I had probably made an internal decision to study my own class at some time in the future. Hence, I wanted it all to be there intact--nothing missing. The point at which I consciously became aware of being a teacher-turned-researcher was while I was reading the forty-three final papers. I read each paper at least three times. Many were read five and six times. At the time it seemed that the fascination I had with these papers was quite unusual and I recall talking constantly to colleagues about "the Colorado teachers."

Long after final grades for the course had been submitted, the box of archived materials still haunted me. For weeks I read and reread the papers, student letters, my comments. It finally occurred to me that I was trying to find out what effect my teaching had on these students! Teachers always wonder this but I had all kinds of evidence to study. Maybe I could, more concretely than ever before, find out how I affected these students. Teachers rarely have this opportunity. Once a course concludes there is nothing much left to look at except the syllabus and lesson notes.

The impact of having the archived materials available for study was enormous. The effects are present with me a year later. Because it would not be economical to recount the whole of this experience in this paper, less than meticulous documentation will be offered for general statements made about the impact of this experience on my teaching. Evidence for general statements, however, is available in the archived materials.

Because the volume of the data became so overwhelming (letters, papers, tests, etc.) I decided to study a subset of the collection. It was in selecting this subset that I came to the most significant realizations about my teaching. I selected fifteen final papers for further study. I picked the one's I liked best and then tried to figure out why I liked the ones I did. Toward this end, I developed categories to help me understand my selection process. Some of the groupings I came up with included peak experiences evident, power of theory experienced, personal or professional empowerment expressed, renewal experienced, change in thinking experienced, change in action decided upon, theories proposed by students for teacher burnout, conflicts expressed and confronted, value of positive building administrator argued, creative utopian curriculum and environment proposed, appreciation and valuing of congruence between beliefs and actions expressed, many connections made between learning style theory, personality theory and personal teaching and learning styles.

Through the process of selecting the subset, I discovered that no men from the class were represented. Although there were only five men in the class, this phenomenon bothered me greatly. Upon further investigation, I discovered that the men also received lower grades and less positive evaluation on their final work than the women did. At this point, I turned to the learning style and personality type demographic data for the whole class in hopes of gaining some insight. Through this activity, I began to uncover my selection motivations. I recognized that I preferred "intuitive, feeling" types that reflected upon their own teaching experience as part of the final paper. Since my personality type and learning style exactly matched those of the students I selected, I realized that I still had not removed this bias from my teaching. True, I used a variety of presentation modes during the class meetings to be certain that those of each Kolb style would have opportunity to learn in their most comfortable learning mode. I had also built into the final projects, opportunities for students to present final course material in a manner that fit their learning styles.

But, could my personal preferences have affected the way I evaluated these students? Did women get better grades because they ofen expressed feelings in their work? Did I value reflection over action? Worse, did I grade people based on my biases? What did I have to offer those who preferred to learn abstractly? Did I give these students a cursory glance only? I am still searching myself on these issues. My teaching will never be the same, however--not because I can change overnight, but because I am conscious of my biases. This first step may take some time to work through, but I can study my behavior because I am aware. Researching my own practice through archiving has proven to be an enormously valuable personal and professional experience.

SETTING ARCHIVING IN CONTEXT

The Research-Practice Split

In **The Reflective Practitioner**,[5] Donald Schon very convincingly articulated the need for practitioners of all kinds to begin to formulate an "epistemology of practice." He reminds us that the gulf between academic research and the knowledge that proceeds from it, and professional practice and the knowledge that proceeds from it, remains as wide as ever. In order to mend that breach, Schon suggests that practitioners need to begin to describe with rigor what it is that they have been doing that results in good practice. In a simple, almost brilliant descent into the practitioner's hideouts of intuition and artistry, he lays these "raisons des etres" bare, as no longer viable explanations, as to why practice-based knowledge is a solid as research-based knowledge. Schon does believe that..."competent practitioners know more than they can say..." but suggests that most competent practitioners also "reveal a capacity for reflection on their intuitive knowing in that midst of action."[6] According to Schon, this capability for active or retrospective reflection on one's practice can decrease the distance between research-based knowledge and practice-based knowledge and the varying credibility that gets assigned to each.

The Double Bind

At present there is increased pressure on faculty to become both better teachers and productive researchers. The reform reports targeting undergraduate education and faculty teaching as lacking,[7] and the perceptible shift on campuses toward establishing research and publication as foremost criteria for promotion and hiring,[8] trap most teaching faculty in a double bind. If they concentrate their energies in the direction of improving their teaching in response to reform demands, they will surely jeopardize the likelihood of promotion if their efforts are not equally met with research and publication. If faculty efforts are centered on research (which is almost impossible for faculty at most institutions due to fiscal constraints and hence heavy course loads) then either teaching will suffer or burnout is likely. There is only so much energy and time available.

Lesley College faculty and administrators may have found a viable means of negotiating this double bind and of contributing to the very articulation of an epistemology practice that Schon calls for. What is true for this group is that they do indeed manifest a flair for reflection on their practices as Schon suggests. This has been consistently evident in the formal presentations faculty have made to one another using Archives materials. What is also true is that they are passionate teachers who have found a way to talk together regularly about what they most love and value in their lives--students and teaching. The Adult Learner Archives is fostering a community of teacher-researchers who are beginning to "say what they know" about teaching that is one result of reflection on their own and their colleague's practices.

ARCHIVES IMPACT ON LESLEY FACULTY AND ADMINISTRATORS

This Archives project has impacted the Lesley Outreach faculty and administrators involved in a multitude of exciting ways. It has brought a diverse group of people together on a regular basis to look at student work and faculty commentary on that work. The level of interest and involvement present surrounding this work could not have been anticipated yet remains the most outstanding and consistent result of the Archives to date.

A freshness of view about teaching has come about due to this project and this augers well for professional development. Bringing examples of our letters and responses to student work before our colleagues for their scrutiny demonstrates an unusual level of vulnerability and trust among us. This is making it possible for us to learn from one another. We have recognized instances of teaching brilliance in the work of our faculty. It's not that we didn't know this before or that we need to boast of it, but we do see that by reflecting on our own and each other's practices we are concretizing an "epistemology of practice" that includes examples of such brilliance. This concretization permits successful teaching strategies to be learned by all of us.

Benefit to Faculty

The Archives project is providing an interesting model for faculty development. Many of faculty's real needs, and concerns are being addressed through this Archives project. The project is providing an opportunity for significant research and writing that is possible for a fully committed teaching faculty. The research becomes possible because it is relevant and integrated into the fabric of faculty life and responsibilities in the Division. Administrator support and encouragement through the setting aside of Divisional time for retreat days for Archives presentations and dialogue has demonstrated to the faculty that their professional development is a priority. Faculty have enthusiastically given themselves to this activity partly because they see it as a welcome wind of good will that promises to enhance their quality of life and professional development.

Benefit to Institution and Beyond

The administrative investment of time has produced benefits for the institution. Out of this have come ideas for courses, programs, new evaluation strategies and a proposal for a Center for Collaborative Individualized Learning (CIL) that will be tied to the Archives.[9] The CIL Center will continue to facilitate learning among us and among participants from many colleges and universities. From the beginning of this project we have made presentations to one another using the Archives materials. We plan to continue this practice. We will eventually invite others to join us through activities sponsored by the Center for Collaborative Individualized Learning. In this way we will continuously be involved in research and teaching activities that are meaningful to us, that arise out of our own daily lives as teachers at Lesley College and that have the potential of contributing significantly to the growing body of wisdom available to us about what good teaching practice is and how it might be taught to others.

Relevance to Other Professionals

Although not every institution will be interested in undertaking the development of an archives, the practice of regularly gathering faculty and administrators together to study student materials and faculty commentary on that material is something that any group could decide to do. Even two faculty getting together regularly to share their teaching practices could experience the benefits Lesley faculty have experienced through the Archives project. Maybe adult educators will finally discover a vehicle for research on teaching that is accessible to the practitioner.

Archiving, or archive-like activities can be a very effective means to study teaching. It can also provide a means for mending the breach between research and practice.

Notes

1 For more information about the Prospect School and Archive or the research methodology developed around these see **The Reference Edition of the Prospect Archive** (Revised Introduction, 1985) and **Manual** "Description of the Reflective-Descriptive Processes Used in the Preparation of the 'Reference Edition of the Prospect Archive'" (Draft prepared December, 1985 by Patricia Carini). In addition, see the following two monographs, Patricia Carini **The School Lives of Seven Children: A Five Year Study** a monograph published by the North Dakota Study Group on Evaluation (North Forks: University of North Dakota Press, 1982) and Carini **Observation and Description: An Alternative Methodology for the Investigation of Human Phenomena** also published by the North Dakota Study Group (North Forks: University of North Dakota Press, 1975).

2 The resources cited in note 1 describe Prospect School and Archive and refer to the schools philosophy of education. Description of the methodology is woven throughout the Prospect literature and the monographs by Patricia Carini include descriptions of the methodology that refer to other children in addition to the children of the Prospect School.

3 Individually guided study is a particular mode of independent study available to adult baccalaureate students at Lesley College. Students select a faculty member to work with for a semester and together they explore an area of study selected by the student. The study is student initiated and faculty guided and may be undertaken for between 3 and 16 semester credits.

4 The Adult Degree Option is a baccalaureate program for adults that allows a student to study in an independent mode guided by a Lesley faculty member. Students in this program engage in sixteen credit studies every six months and attend a ten-day residence preceeding each study.

5 Donald Schon, **The Reflective Practitioner** (New York: Basic Books, Inc., Publishers, 1983), p.viii.

6 Ibid., p. ix.

7 See Project on Redefining the Meaning and Purpose of Baccalaureate Degrees, "Integrity in the College Curriculum," reprinted in the **Chronicle of Higher Education**, February 13, 1985.

8 See Jack Schuster and Howard Bowen, "The Faculty at Risk" in **Change**, September/October, 1985.

9 The Center for Collaborative Individualized Learning (CIL) has been funded by The Fund for Postsecondary Education for 1987-89. The Center will sponsor conferences, workshops, faculty exchanges, research, and assessment. The Archives will be made available to researchers outside of Lesley through the Center. A quarterly CIL Newsletter will be published. For more information or to be added to the mailing list, contact: Landa & Tarule, CIL Center, Lesley College, 29 Everett Street, Cambridge, MA 02238, 800-541-8486.

INDICES

Author Index

Adams, John C., ... 117
Aguilar, William, ... 85
Baker, Merl, ... 253
Bolling, Anna, ... 59
Brown, Doris R., ... 105
Burgard, Lenore, ... 241
Carter, Robert L., ... 205
Davis, Dan A., ... 1
Dunford, Terrance, ... 223
English, Susan, ... 235
Fink, L. Dee, ... 1
Fulks, Danny, ... 133
Granger, Daniel, ... 45
Grimes, Paul W., ... 35
Hausle, Earl, ... 63
Huffman, Stanley A., ... 7
Kascus, Marie, ... 85
Klinger, Karla, ... 77
Knoll, Jean W., ... 267
Marienau, Catherine, ... 267
Mey, John Walter, ... 155
Nielsen, Joyce E., ... 35
Niss, James F., ... 35
O'Brien, Sharon, ... 235

Pribor, Donald B., ... 283

Redwine, Marie, ... 195

Rosenbloom, Al, ... 229

Schindler, Roslyn Abt, ... 205

Silverthorne, Colin, ... 217

Simone, Sharon E., ... 291

Spanard, Jan-Marie A., ... 173

Stone, Harvey R., ... 17

Strickland, Norma J., ... 145

Thole, Nancie, ... 229

Warren, Kent, ... 273

Watson, Ulestine, ... 183

Institution Index

A & R Consultants, ... 229

Central Connecticut State University 85

Central Michigan University, ... 155

Cuyahoga Community College, ... 223

DePaul University, ... 105, 267

East Arkansas Community College, ... 145

Lesley College Graduate School, ... 291

Marshall University, ... 133

MEC Associates, ... 229

Mississippi State University, ... 35

Northeastern Illinois University, ... 183

St. Edward's University, ... 59

Southwestern Adventist College, ... 195

SUNY Empire State College, ... 45

Thomas A. Edison State College, ... 55

Tusculum College, ... 63

University of Massachusetts, Amherst, ... 17

University of Minnesota, ... 241, 273

University of Minnesota, Morris, ... 77

University of Oklahoma, ... 1

University of San Francisco, ... 217

University of the State of New York Regents College Degrees, ... 173

University of Tennessee, Chattanooga, ... 253

University of Toledo, ... 283

University of Wisconsin, Platteville, ... 117

Virginia Tech, ... 7

Wayne State University, ... 205, 235

Western Illinois University, ... 35